Access DB# 233752

SEARCH REQUEST FORM

Scientific and Technical Information Center

3-19a

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: _____
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/530,349
Mail Box and Bldg/Room Location: 9C15 (Rem.) Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. see Bib.

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search
for a triazine trione compound having
a substituent of formula (2) or (3)
as substituent on nitrogen atom.
(See cl. #1) ✓

****

STAFF USE ONLY

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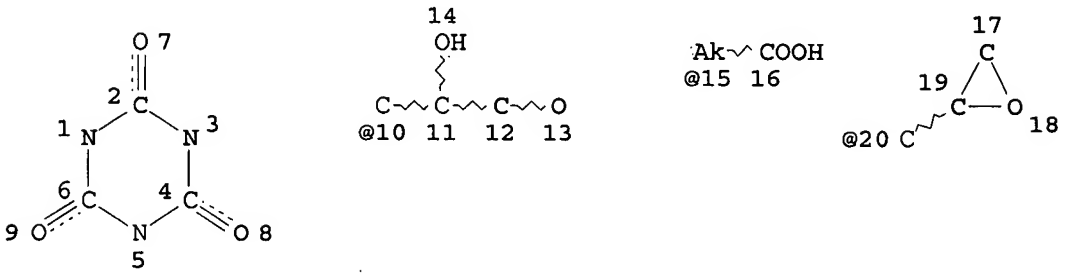

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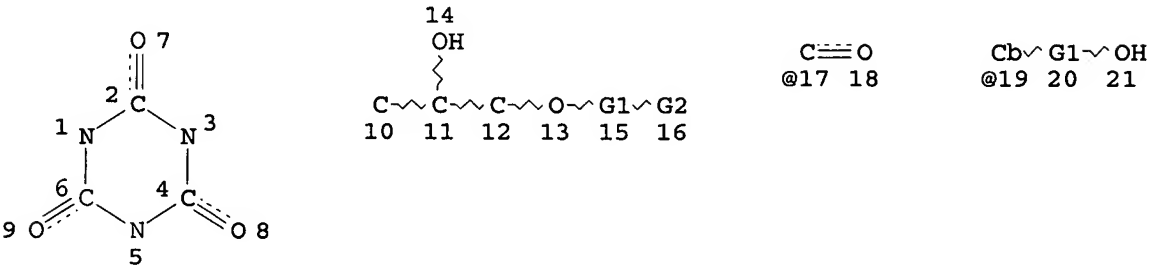


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GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
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L44  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2007 ACS on STN
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ACCESSION NUMBER: 2006:541892 HCAPLUS
DOCUMENT NUMBER: 145:53315
TITLE: Method for forming photoresist pattern using double layer antireflection film
INVENTOR(S): Hatanaka, Tadashi
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006059452	A1	20060608	WO 2005-JP20182	20051101

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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PRIORITY APPLN. INFO.: JP 2004-351351 A 20041203

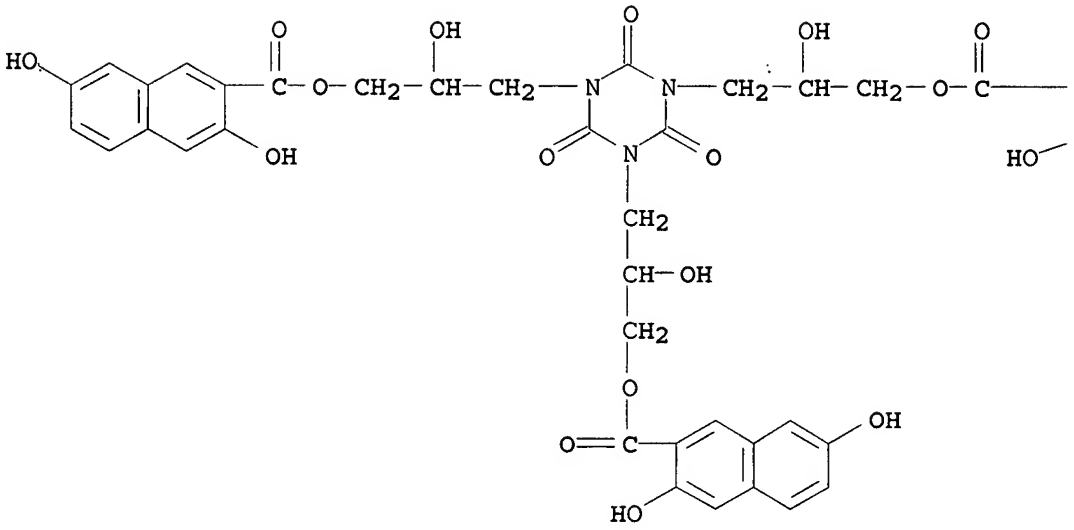
ED Entered STN: 09 Jun 2006

AB Disclosed is a method for forming a pattern, wherein both photoresist and antireflection film have a rectangular shape, in a lithog. process of semiconductor device production by using an antireflection film which is developable by a photoresist developer liquid Specifically disclosed is a method for forming a photoresist pattern comprising a step for forming a first antireflection film which is soluble in a photoresist developer liquid; a step for forming, on the first antireflection film, a second antireflection film which is soluble in the photoresist developer liquid and whose dissolving rate in the photoresist developer liquid is lower than that of the first antireflection film; a step for forming a photoresist on the second antireflection film; a step for exposing a semiconductor substrate which is covered with the first antireflection film, the second antireflection film and the photoresist; and a step for developing by using the photoresist developer liquid

IT **681258-78-6P**
(antireflection film forming composition; method for forming photoresist pattern using double layer antireflection film in semiconductor device fabrication process)

RN 681258-78-6 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, 2,2',2''-[(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl)] ester (CA INDEX NAME)

PAGE 1-A



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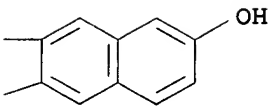

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73, 76
IT **681258-78-6P** 889868-86-4P
(antireflection film forming composition; method for forming photoresist pattern using double layer antireflection film in semiconductor device fabrication process)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1241189 HCAPLUS
DOCUMENT NUMBER: 143:485834
TITLE: Antireflective film-forming composition containing vinyl ether compound for photoresist pattern
INVENTOR(S): Hatanaka, Tadashi; Kimura, Shigeo; Enomoto, Tomoyuki
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005111724	A1	20051124	WO 2005-JP8617		20050511
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
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EP 1757987	A1	20070228	EP 2005-739255		20050511
R: DE, FR, GB, IT, NL					
CN 1954265	A	20070425	CN 2005-80015398		20050511
PRIORITY APPLN. INFO.:			JP 2004-144625	A	20040514
			JP 2004-353627	A	20041207
			WO 2005-JP8617	W	20050511

ED Entered STN: 24 Nov 2005

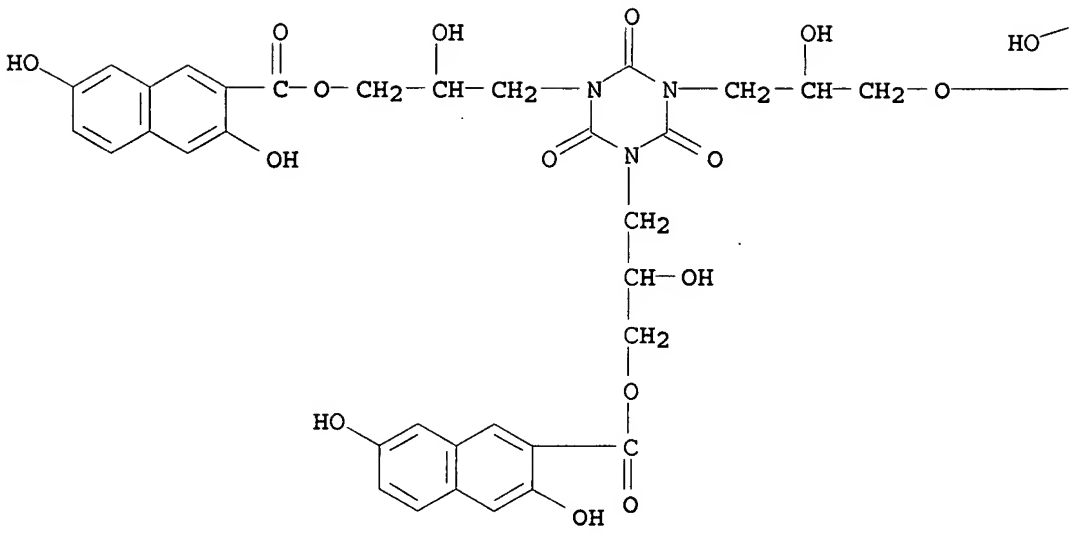
AB Disclosed is an antireflective film-forming composition for forming an antireflective film which is used in the lithog. process during semiconductor device production and can be developed with an alkaline developer for photoresists. Also disclosed is a method for forming a photoresist pattern using such an antireflective film-forming composition The antireflective film-forming composition contains a compound having at least two vinyl ether groups, an alkali-soluble compound having at least two phenolic hydroxy groups or carboxyl groups, a photoacid generator and a solvent.

IT **869792-92-7P**
(antireflective film-forming composition containing vinyl ether compound for photoresist pattern)

RN 869792-92-7 HCAPLUS

CN 1-Naphthalenecarboxylic acid, 2,6-dihydroxy-, 3-[3,5-bis[3-[[(3,7-dihydroxy-2-naphthalenyl)carbonyl]oxy]-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



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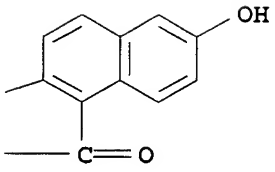

IC ICM G03F007-11
ICS G03F007-20; G03F007-38; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT **869792-92-7P** 869792-93-8P 869792-94-9P 869792-95-0P 869792-96-1P
(antireflective film-forming composition containing vinyl ether compound for photoresist pattern)
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:219904 HCAPLUS
DOCUMENT NUMBER: 142:306447
TITLE: Polyamic acid-containing composition for forming antireflective film
INVENTOR(S): Hatanaka, Tadashi; Enomoto, Tomoyuki; Kimura, Shigeo
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005022261	A1	20050310	WO 2004-JP12389	20040827
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EP 1666972	A1	20060607	EP 2004-772345	20040827
R: DE, FR, GB, IT, NL				
CN 1842744	A	20061004	CN 2004-80024583	20040827
US 2007004228	A1	20070104	US 2006-569471	20060224
PRIORITY APPLN. INFO.:			JP 2003-304376 A	20030828
			WO 2004-JP12389 W	20040827

ED Entered STN: 11 Mar 2005

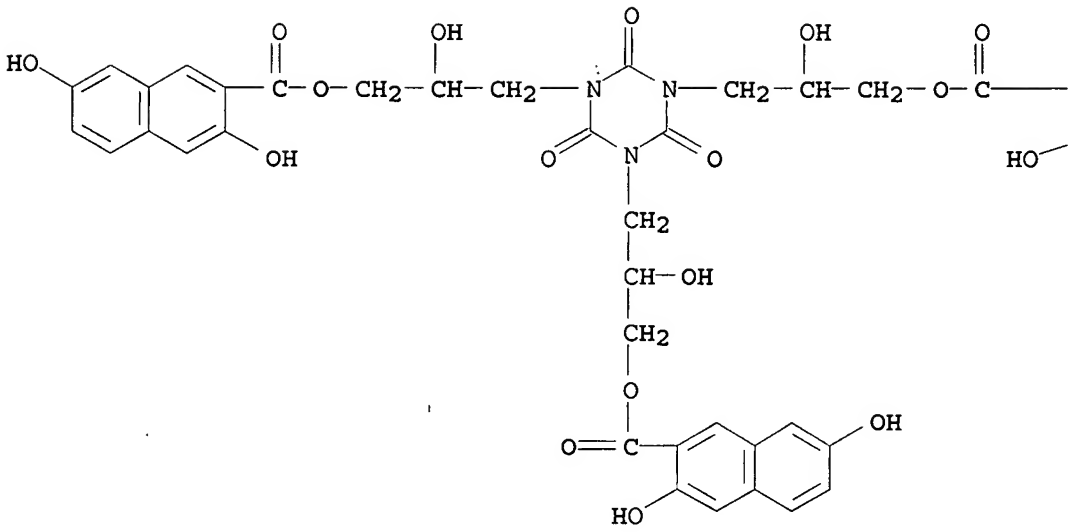
AB Disclosed is a composition for forming an antireflective film which is used in the lithog. process in semiconductor device production and can be developed with an alkaline developing solution for photoresists. Also disclosed is a method for forming a photoresist pattern by using such a composition for forming an antireflective film. The composition for forming an antireflective film contains a polyamic acid produced from a tetracarboxylic acid dianhydride compound and a diamine compound having at least one carboxyl group, a compound having at least two epoxy groups and a solvent.

IT **681258-78-6P**
(preparation of light-absorbing compound for antireflective film)

RN 681258-78-6 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, 2,2',2''-[(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl)] ester (CA INDEX NAME)

PAGE 1-A



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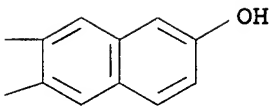

IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41, 76
IT **681258-78-6P**
(preparation of light-absorbing compound for antireflective film)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:333991 HCAPLUS
DOCUMENT NUMBER: 140:359011
TITLE: Bottom anti-reflective coatings derived from small core molecules with multiple epoxy moieties
INVENTOR(S): Neef, Charles J.; Bhave, Mandar; Fowler, Michelle; Windsor, Michelle
PATENT ASSIGNEE(S): Brewer Science, Inc., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034435	A2	20040422	WO 2003-US332091	20031007
WO 2004034435	A3	20050728		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
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US 2004110089	A1	20040610	US 2003-679521	20031006
AU 2003282554	A1	20040504	AU 2003-282554	20031007
EP 1573785	A2	20050914	EP 2003-774743	20031007
EP 1573785	A3	20050921		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006502448	T	20060119	JP 2004-543632	20031007
CN 1739063	A	20060222	CN 2003-80104562	20031007
PRIORITY APPLN. INFO.:			US 2002-417214P P	20021008
			US 2003-679521 A	20031006
			WO 2003-US32091 W	20031007

OTHER SOURCE(S): MARPAT 140:359011

ED Entered STN: 23 Apr 2004

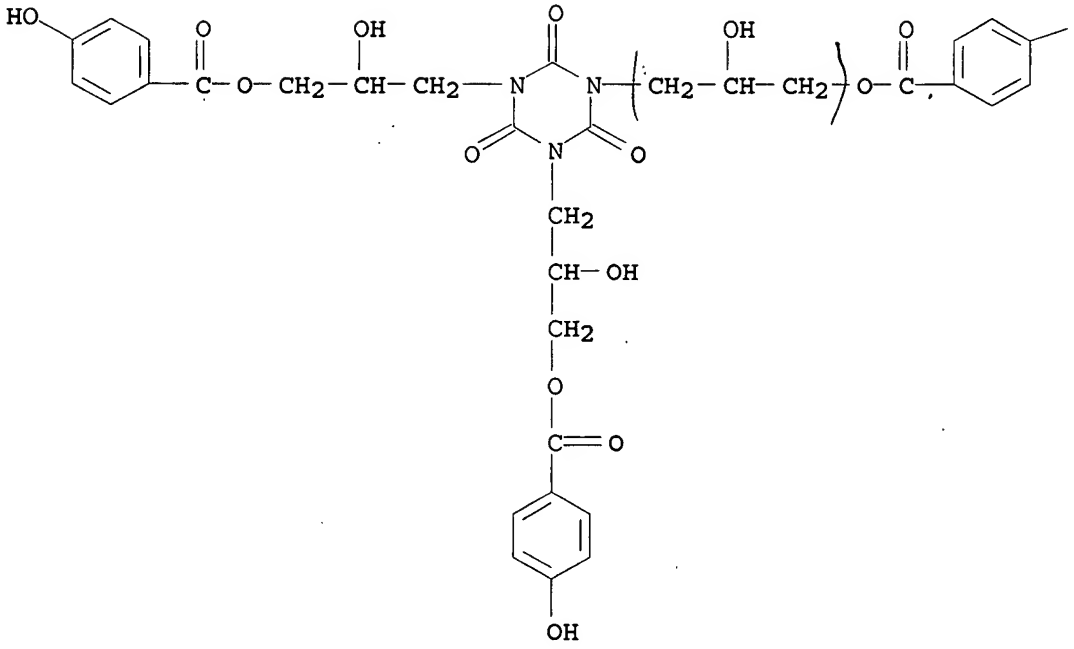
AB Novel anti-reflective coatings comprising small mols. (e.g., less than about 5000 g/mol) in lieu of high mol. weight polymers and methods of using those coatings are provided. In one embodiment, aromatic carboxylic acids are used as the chromophores, and the resulting compds. are blended with a crosslinking agent and an acid. Anti-reflective coating films prepared according to the invention exhibit improved properties compared to high mol. weight polymeric anti-reflective coating films. The small mol. anti-reflective coatings have high etch rates and good via fill properties. Photolithog. processes carried out with the inventive material result in freestanding, 110-nm profiles. Thus, heating tris(2,3-epoxypropyl)isocyanurate 17.84 with 4-hydroxybenzoic acid 24.86, benzyltriethylammonium chloride 1.03 and propylene glycol Pr ether 384.3 g at 120° for 16 h under N and mixing the resulting mother liquor 20 with Powderlink 1174 (crosslinking agent) 0.50, p-toluenesulfonic acid 0.06 g, propylene glycol Pr ether 10.84 and Et lactate 28.84 g gave a coating which was coated on a wafer, baked at 205° for seconds, sprayed with Et acetate or propylene glycol monomethyl ether acetate and spin dried to give a coat film with good claimed properties.

IT **681258-74-2P**
(bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)

RN 681258-74-2 HCAPLUS

CN Benzoic acid, 4-hydroxy-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

IT **681258-75-3P 681258-78-6P 681258-79-7P**
(bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)

RN 681258-75-3 HCAPLUS

CN Benzoic acid, 4-hydroxy-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl) ester, polymer with tetrahydro-1,3,4,6-tetrakis(methoxymethyl)imidazo[4,5-d]imidazole-2,5(1H,3H)-dione (9CI) (CA INDEX NAME)

CM 1

CRN 681258-74-2
CMF C33 H33 N3 O15

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United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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CONFIRMATION NO. 7775

Bib Data Sheet

SERIAL NUMBER	FILING OR 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/530,349	04/06/2005 RULE	430	1752	123418

APPLICANTS
Takahiro Kishioka, Nei-gun, JAPAN;
Ken-ichi Mizusawa, Chiyoda-ku, JAPAN;
Tomoyuki Enomoto, Nei-gun, JAPAN;
Rikimaru Sakamoto, Nei-gun, JAPAN;
Keisuke Nakayama, Nei-gun, JAPAN;
Yasuo Kawamura, Funabashi-shi, JAPAN;

** CONTINUING DATA **********
This application is a 371 of PCT/JP03/12875 10/08/2003 RA

** FOREIGN APPLICATIONS **********
JAPAN 2002-295777 10/09/2002
JAPAN 2003-126886 05/02/2003 RA

IF REQUIRED, FOREIGN FILING LICENSE GRANTED **
09/18/2006

Foreign Priority claimed	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
☑ yes ☐ no 35 USC 119 (a-d) conditions met ☑ yes ☐ no ☐ Met after Allowance Verified and Acknowledged Examiner's Signature Initials RA	JAPAN	0	19	1

ADDRESS
25944

TITLE
Composition for forming anti-reflective coating for use in lithography

FILING FEE RECEIVED	FEES: Authority has been given in Paper	
1030	No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

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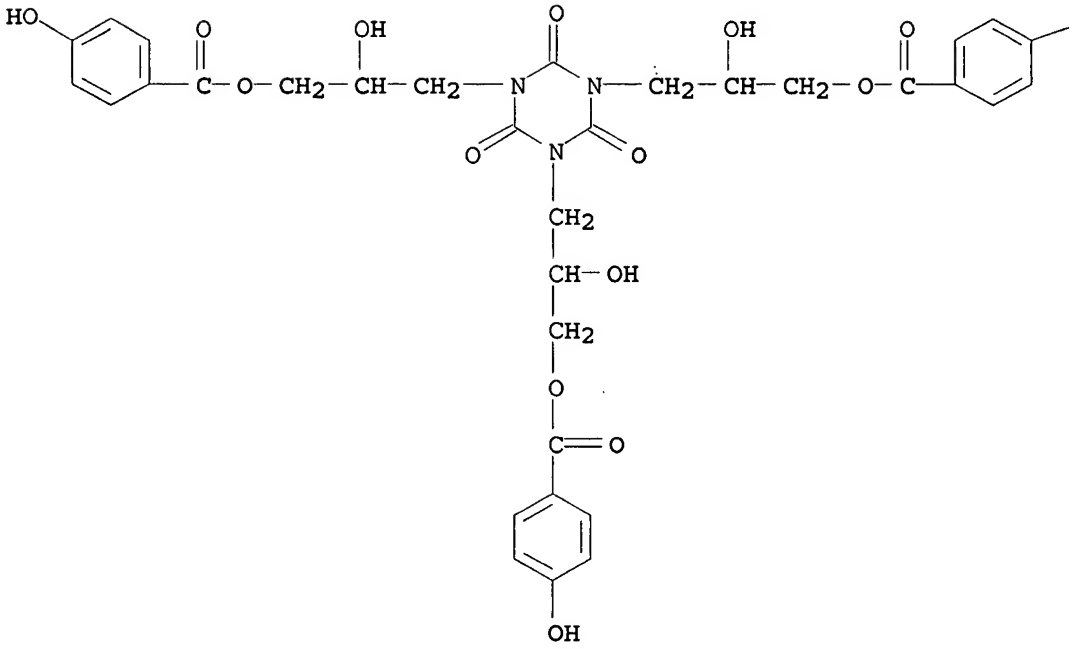

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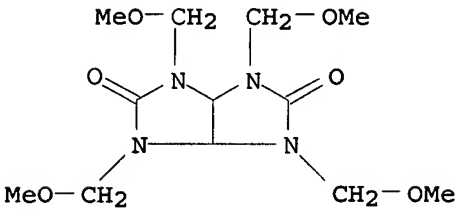

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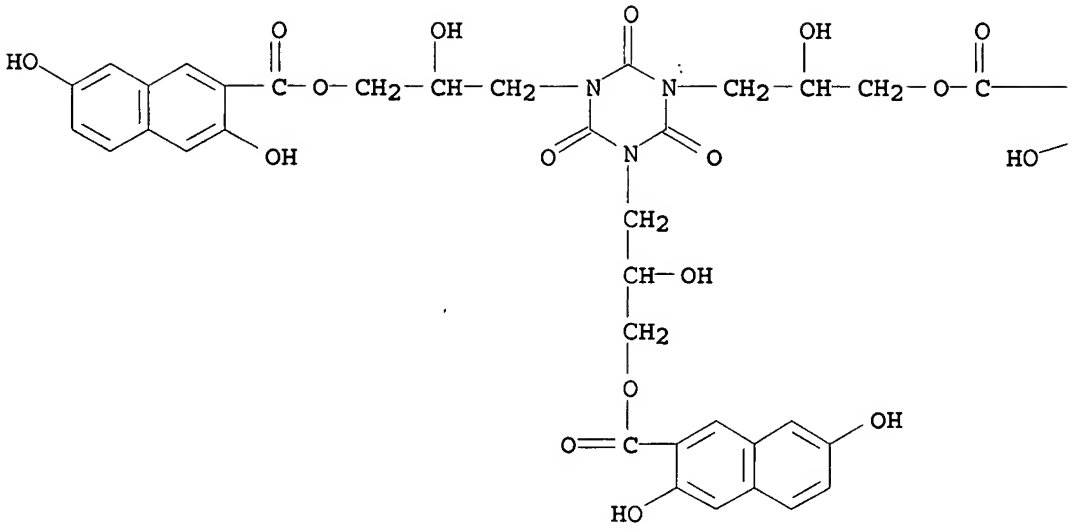
PAGE 1-A



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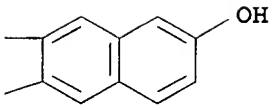

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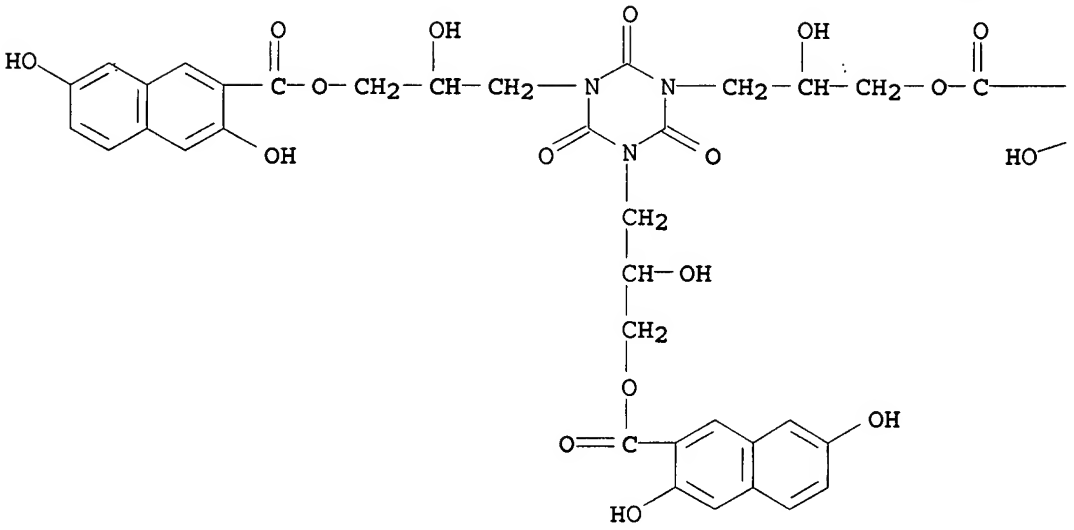
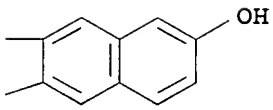
CM 1

CRN 681258-78-6
CMF C45 H39 N3 O18

PAGE 1-A

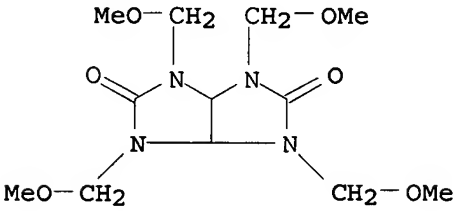


PAGE 1-B



CM 2

CRN 17464-88-9
CMF C12 H22 N4 O6



IC ICM H01L
CC 42-9 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74, 76
IT **681258-74-2P** 681258-76-4P 681258-80-0P 681437-59-2P
(bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)
IT **681258-75-3P** 681258-77-5P **681258-78-6P**
681258-79-7P 681258-81-1P 681437-62-7P

(bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)

L44 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:120819 HCAPLUS
DOCUMENT NUMBER: 140:165096
TITLE: Fluorinated urethane compounds and compositions containing the same
INVENTOR(S): Yamamoto, Ikuo; Kusumi, Kayo; Yoshioka, Takuya; Yamaguchi, Fumihiko
PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013089	A1	20040212	WO 2003-JP9903	20030805
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493985	A1	20040212	CA 2003-2493985	20030805
AU 2003252390	A1	20040223	AU 2003-252390	20030805
EP 1548001	A1	20050629	EP 2003-766731	20030805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1675176	A	20050928	CN 2003-819020	20030805
US 2006091351	A1	20060504	US 2005-523518	20050204
PRIORITY APPLN. INFO.:			JP 2002-228795 A	20020806
			WO 2003-JP9903 W	20030805

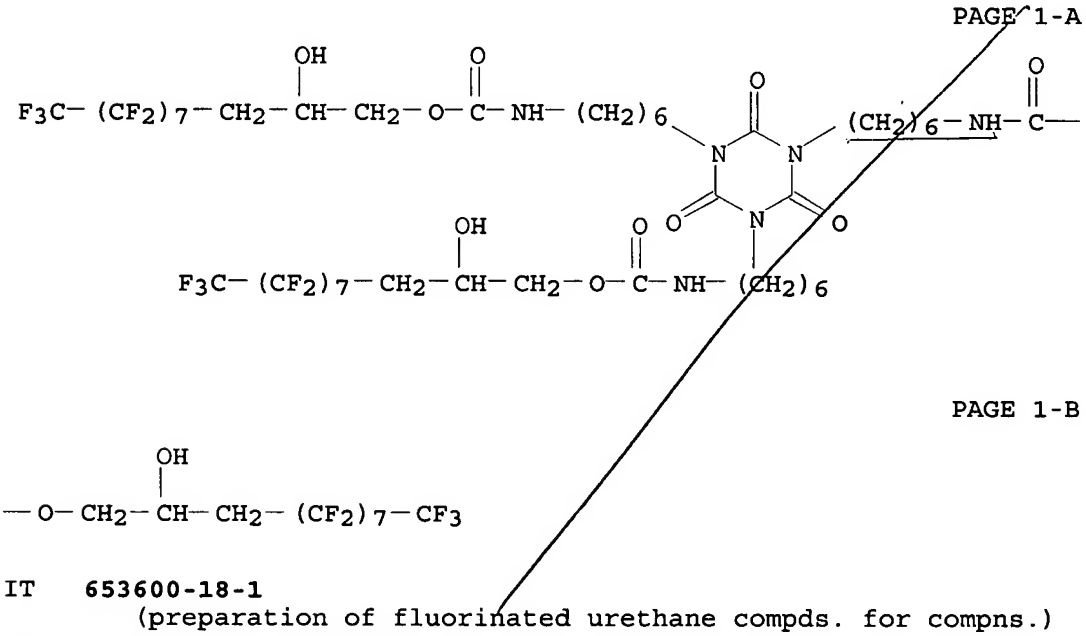
ED Entered STN: 13 Feb 2004
AB Fluorinated urethane compds. [RfA1(X1(OH))(Y1)a-OC(:O)NH]mI[NHC(:O)OY2]n[NHC(:O)O((ClCH2)X2O)bR1]k can impart high water- and oil-repellency, wherein I = a group derived from a polyisocyanate compound by removing the isocyanato groups; Rf = C2-21 perfluoroalkyl; A1 = a direct bond or C1-21 divalent organic group; X1, X2 = C2-5 trivalent, linear or branched aliphatic group; Y1 = a divalent organic group containing C0-5, N0-2, and ≥1 hydrogen atom (≥1 carbon atom or ≥1 nitrogen atom must be present); Y2 = a monovalent organic group which may have a hydroxyl group; and R1 = H or C1-10 alkyl. Thus, 20.1 g 3-perfluorooctyl-1,2-propanediol obtained from 3-perfluorooctyl-1,2-epoxypropane and 7.79 g Sumidur N 3300 were reacted to give 25.3 g hydroxy-containing perfluotooctylpropyl substituted hexamethylene diisocyanate isocyanurate, 5 g of which was emulsified in the presence of polyethylene glycol alkyl ether and sodium α-olefinsulfonate, applied on a carpet and heat-cured to give a

test piece showing good water and oil repellency and anticontamination.

IT **653600-17-0P**
(preparation of fluorinated urethane compds. for compns.)

RN 653600-17-0 HCAPLUS

CN Carbamic acid, [(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-6,1-hexanediyl]tris-, tris(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl) ester (9CI) (CA INDEX NAME)



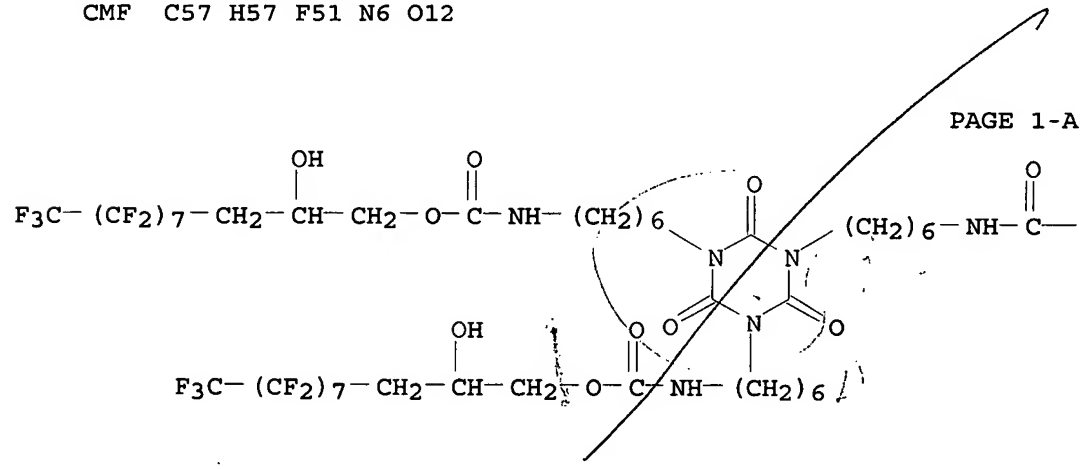
IT **653600-18-1**
(preparation of fluorinated urethane compds. for compns.)

RN 653600-18-1 HCAPLUS

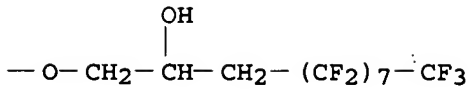
CN Carbamic acid, [(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-6,1-hexanediyl]tris-, tris(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 653600-17-0
CMF C57 H57 F51 N6 O12



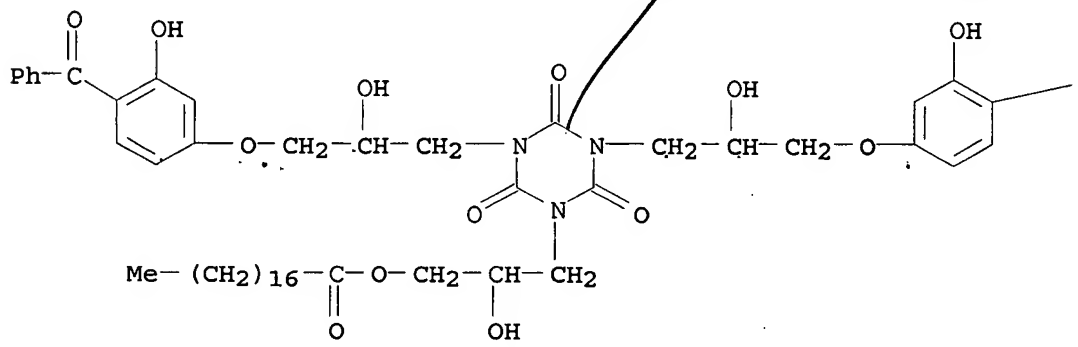
PAGE 1-B



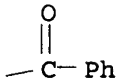
IC ICM C07C275-62
ICS C09K003-00; C09K003-18; C07D251-34; D06M015-576
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 40
IT **653600-17-0P** 653600-19-2P
(preparation of fluorinated urethane compds. for compns.)
IT **653600-18-1**
(preparation of fluorinated urethane compds. for compns.)

L44 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:874760 HCAPLUS
DOCUMENT NUMBER: 136:342504
TITLE: Synthesis of the ultraviolet absorber UV-1009
AUTHOR(S): Yi, Bing; Lin, Yuan-bin; Guo, Xian-luo
CORPORATE SOURCE: Dep. Chem., Hunan Eng. Inst., Xiangtan, 411101, Peop. Rep. China
SOURCE: Jingxi Huagong Zhongjianti (2001), 31(4), 9-10
CODEN: JHZIAR; ISSN: 1009-9212
PUBLISHER: Jingxi Huagong Zhongjianti Zazhishe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 05 Dec 2001
AB A new high relative mol. mass UV absorber UV-1009 was prepared by using urea as starting material, which is converted into isocyanuric acid via pyrosis condensation. The latter reacts with epichlorohydrin, octadecanoic acid and 2,4-dihydroxybenzophenone in turn. The total yield of product is over 76%.
IT **84139-15-1P**, UV 1009
(UV 1009; synthesis of UV absorber UV 1009)
RN 84139-15-1 HCAPLUS
CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

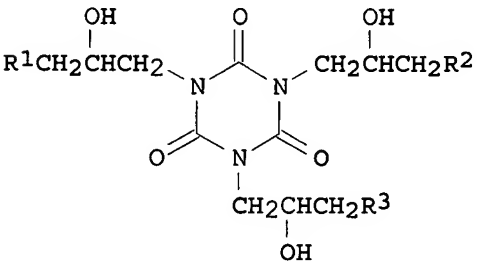


CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
Section cross-reference(s): 37
IT **84139-15-1P**, UV 1009
(UV 1009; synthesis of UV absorber UV 1009)

L44 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:650530 HCAPLUS
DOCUMENT NUMBER: 131:279194
TITLE: Isocyanurate wide range UV-absorber for thin film
INVENTOR(S): Samukawa, Seiji
PATENT ASSIGNEE(S): Kyodo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11279523	A	19991012	JP 1998-121594	19980326
PRIORITY APPLN. INFO.:			JP 1998-121594	19980326

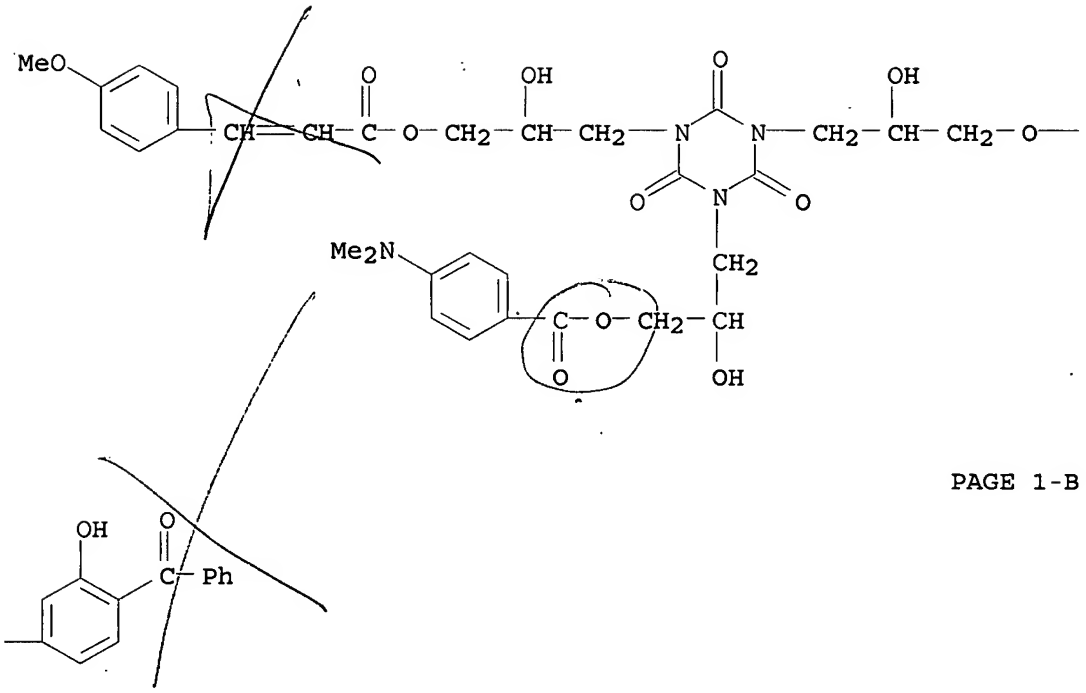
OTHER SOURCE(S): MARPAT 131:279194
ED Entered STN: 13 Oct 1999
GI



I

AB The isocyanurate wide range UV-absorber for thin film has structure I (R1-3 = aromatic substituent). The UV absorber shows the excellent co-solubility with a polymer to form a thin film.
IT **245504-65-8P 245512-31-6P 245512-32-7P**
(isocyanurate wide range UV-absorber for thin film)
RN 245504-65-8 HCAPLUS
CN Benzoic acid, 4-(dimethylamino)-, 3-[3-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-5-[2-hydroxy-3-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]propyl]-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

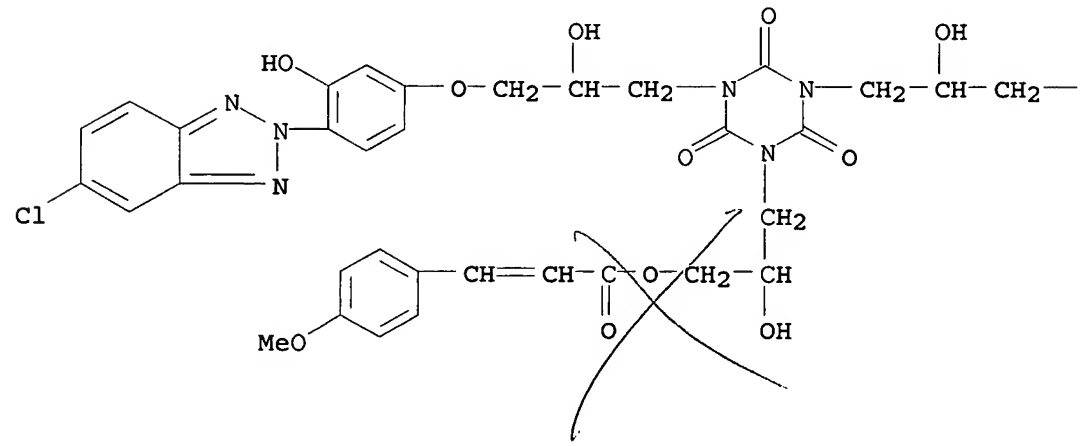
PAGE 1-A



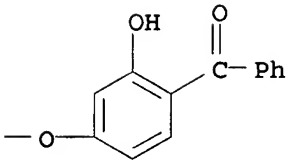
PAGE 1-B

RN 245512-31-6 HCAPLUS
CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 3-[3-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-5-[3-[4-(5-chloro-2H-benzotriazol-2-yl)-3-hydroxyphenoxy]-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

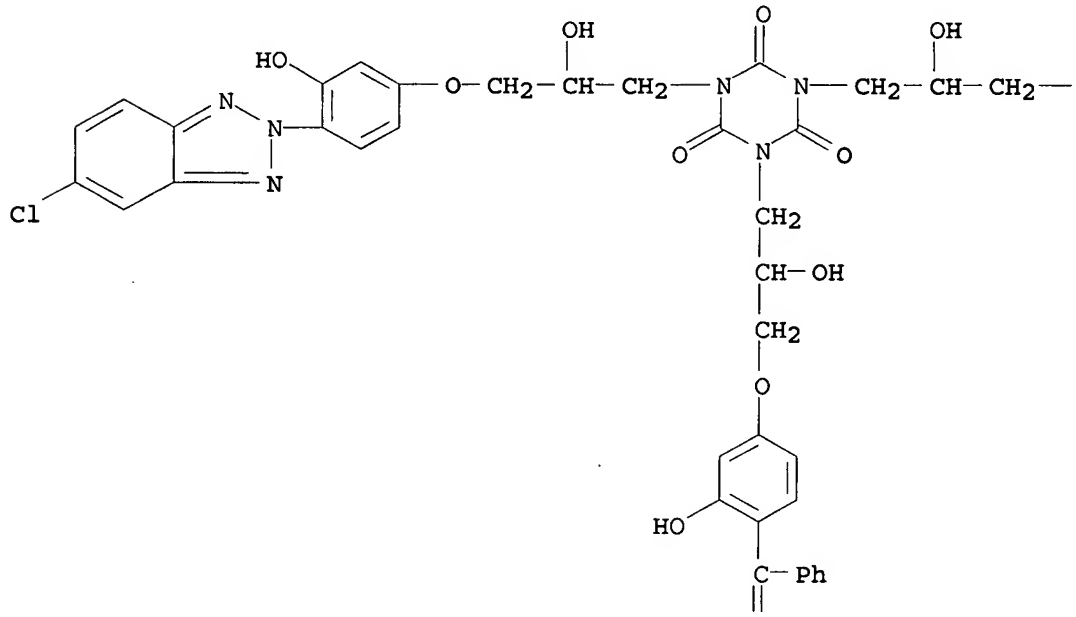


PAGE 1-B

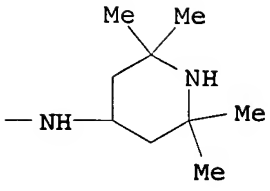


RN 245512-32-7 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-3-[3-[4-(5-chloro-2H-benzotriazol-2-yl)-3-hydroxyphenoxy]-2-hydroxypropyl]-5-[2-hydroxy-3-[(2,2,6,6-tetramethyl-4-piperidinyl)amino]propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

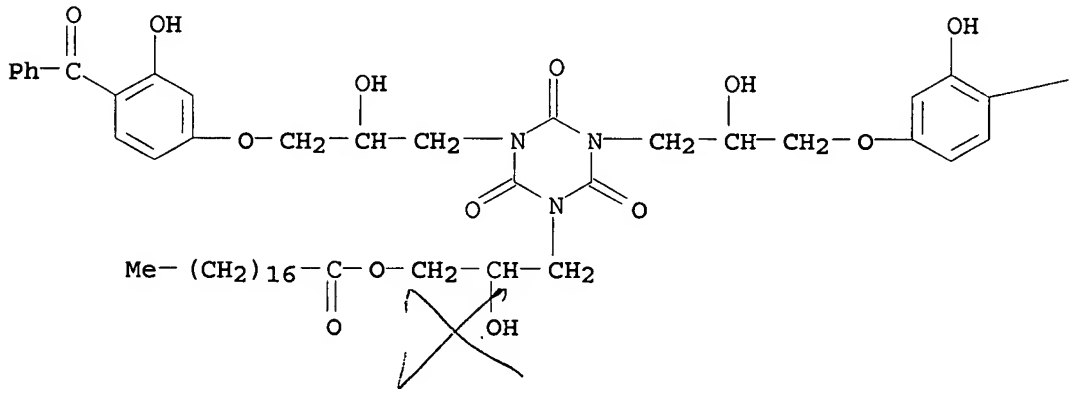


PAGE 2-A

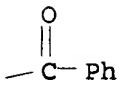
IC ICM C09K003-00
ICS C07D251-34; C07D401-14; C07D487-04; C07D519-00
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42
IT **245504-65-8P 245512-31-6P 245512-32-7P**
(isocyanurate wide range UV-absorber for thin film)

L44 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:589843 HCAPLUS
DOCUMENT NUMBER: 123:171315
TITLE: Synthesis of high molecular weight ultraviolet Absorbent UV-1009
AUTHOR(S): Zhu, Xu'en; Yu, Hong
CORPORATE SOURCE: Department Chemical Engineering, Northwest University, Xi'an, 710069, Peop. Rep. China
SOURCE: Xibei Daxue Xuebao, Ziran Kexueban (1995), 25(1), 75-7
CODEN: HPHPAQ; ISSN: 1000-274X
PUBLISHER: Xibei Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 06 Jun 1995
AB In the presence of catalyst, high mol. weight UV absorbent UV-1009 was synthesized from tris(2,3-epoxypropyl) isocyanurate, higher fatty acids and 2,4-dihydroxybenzophenone. In the optimum synthetic condition the yield was 89.9%.
IT **84139-15-1P**, UV 1009
(synthesis of high mol. weight UV absorbent UV-1009)
RN 84139-15-1 HCAPLUS
CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



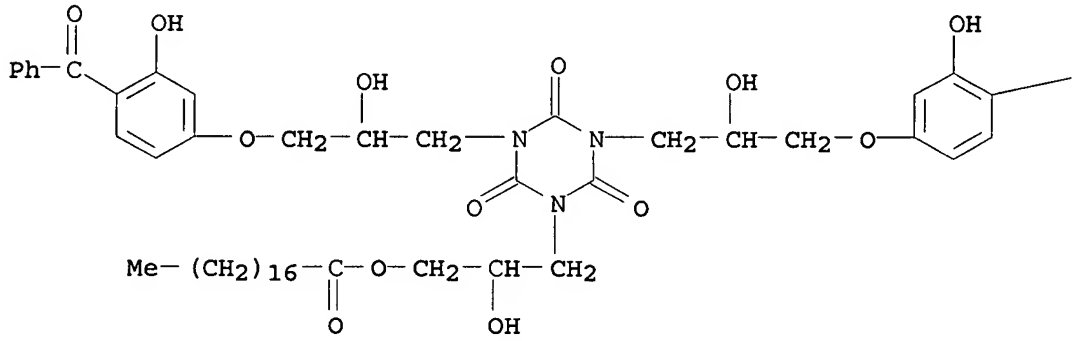
PAGE 1-B



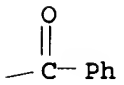
CC 37-6 (Plastics Manufacture and Processing)
IT 131-56-6DP, 2,4-Dihydroxybenzophenone, reaction products with tris(2,3-epoxypropyl) isocyanurate and fatty acid 2451-62-9DP, Tris(2,3-epoxypropyl) isocyanurate, reaction products with 2,4-dihydroxybenzophenone and fatty acid **84139-15-1P**, UV 1009
(synthesis of high mol. weight UV absorbent UV-1009)

L44 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:23295 HCAPLUS
DOCUMENT NUMBER: 122:241304
TITLE: Properties and application of UV-981 and UV-1009 ultraviolet absorbers
AUTHOR(S): Zhu, Huen; Yu, Hong; Li, Guozhong
CORPORATE SOURCE: Dep. Chem. Eng., Northwest Univ., Xi'an, 710069, Peop. Rep. China
SOURCE: Xibei Daxue Xuebao, Ziran Kexueban (1994), 24(2), 127-32
CODEN: HPHPAQ; ISSN: 1000-274X
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 08 Nov 1994
AB The IR and UV-visible spectra, toxicity, compatibility, heat resistance, water resistance, and aging resistance of benzophenone-type light stabilizers UV-981 and UV-1009 benzophenone-type light stabilizers for polymers are discussed.
IT **84139-15-1**, UV 1009
(properties and application of UV-981 and UV-1009 benzophenone-type light stabilizers for polymers)
RN 84139-15-1 HCAPLUS
CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

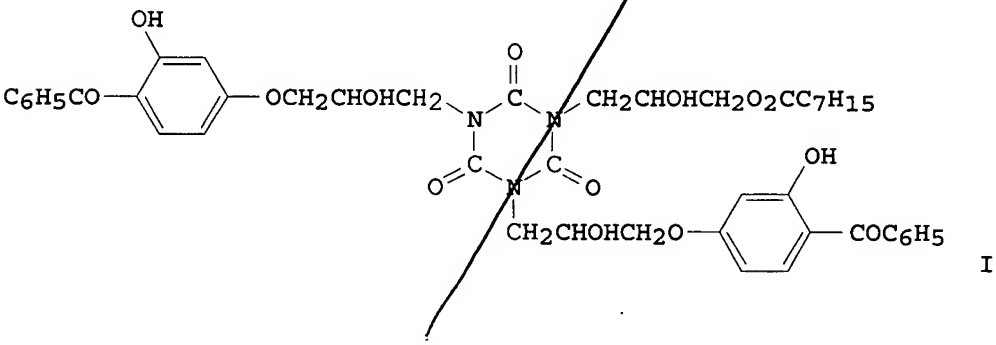


CC 37-6 (Plastics Manufacture and Processing)
IT 119-61-9D, Benzophenone, derivs. **84139-15-1**, UV 1009
162261-57-6, UV 981
(properties and application of UV-981 and UV-1009 benzophenone-type light stabilizers for polymers)

L44 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:35530 HCAPLUS
DOCUMENT NUMBER: 98:35530
TITLE: Stabilized resin compositions
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57117564	A	19820722	JP 1981-3657	19810112
JP 63046108	B	19880913		
PRIORITY APPLN. INFO.:			JP 1981-3657	19810112

ED Entered STN: 12 May 1984
GI



I

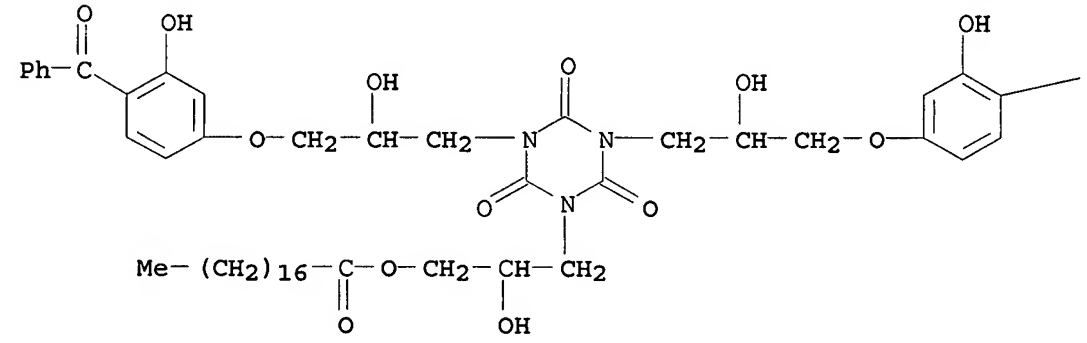
AB triglycidyl isocyanurate [2451-62-9] Reacts with fatty acids, or amines and 2,4-dihydroxybenzophenone [131-56-6] to prepare light stabilizers for polypropylene [9003-07-0] and PVC [9002-86-2]. Thus, a film prepared from PVC 100, DOP 48, an epoxidized soybean oil 2, Ca stearate 1, Zn stearate 0.1, and I [**84139-19-5**] 0.2 part was irradiated 300 h in a carbon arc sunshine weather meter to give a light yellow color, whereas a similar film containing no I gave a blackish-brown color.
IT **84139-15-1 84139-16-2 84139-17-3**
84139-18-4 84139-19-5

(light stabilizers, for PVC and polypropylene)

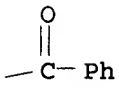
RN 84139-15-1 HCAPLUS

CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



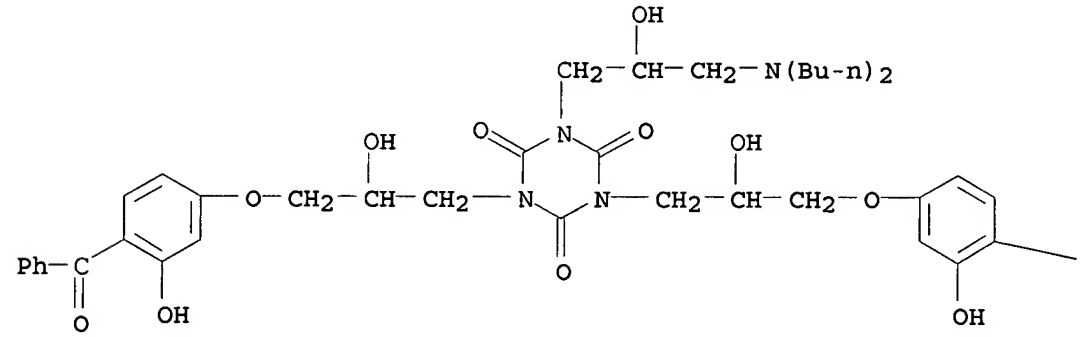
PAGE 1-B



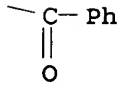
RN 84139-16-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-5-[3-(dibutylamino)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

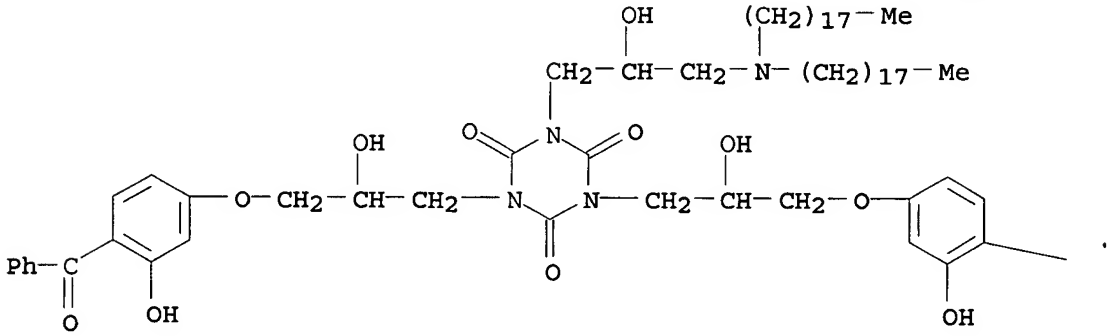


PAGE 1-B

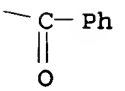


RN 84139-17-3 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-5-[3-(dioctadecylamino)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RN 84139-18-4 HCAPLUS
CN Octadecanoic acid, [5-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]dihydro-2,4,6-trioxo-1,3,5-triazine-1,3(2H,4H)-diyl]bis(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Bib Data Sheet

CONFIRMATION NO. 7775

SERIAL NUMBER	FILING OR 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/530,349	04/06/2005 RULE	430	1752	123418

APPLICANTS

Takahiro Kishioka, Nei-gun, JAPAN;
Ken-ichi Mizusawa, Chiyoda-ku, JAPAN;
Tomoyuki Enomoto, Nei-gun, JAPAN;
Rikimaru Sakamoto, Nei-gun, JAPAN;
Keisuke Nakayama, Nei-gun, JAPAN;
Yasuo Kawamura, Funabashi-shi, JAPAN;

** CONTINUING DATA **********

This application is a 371 of PCT/JP03/12875 10/08/2003 SJL

** FOREIGN APPLICATIONS **********

JAPAN 2002-295777 10/09/2002
JAPAN 2003-126886 05/02/2003 SJL

IF REQUIRED, FOREIGN FILING LICENSE GRANTED **
09/18/2006

Foreign Priority claimed	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
☑ yes ☐ no	JAPAN	0	19	1
35 USC 119 (a-d) conditions met ☑ yes ☐ no ☐ Met after Allowance				
Verified and Acknowledged Examiner's Signature Initials				

ADDRESS
25944

TITLE

Composition for forming anti-reflective coating for use in lithography

FILING FEE RECEIVED	FEES: Authority has been given in Paper
1030	No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:

- ☐ All Fees
- ☐ 1.16 Fees (Filing)
- ☐ 1.17 Fees (Processing Ext. of time)
- ☐ 1.18 Fees (Issue)
- ☐ Other _____
- ☐ Credit

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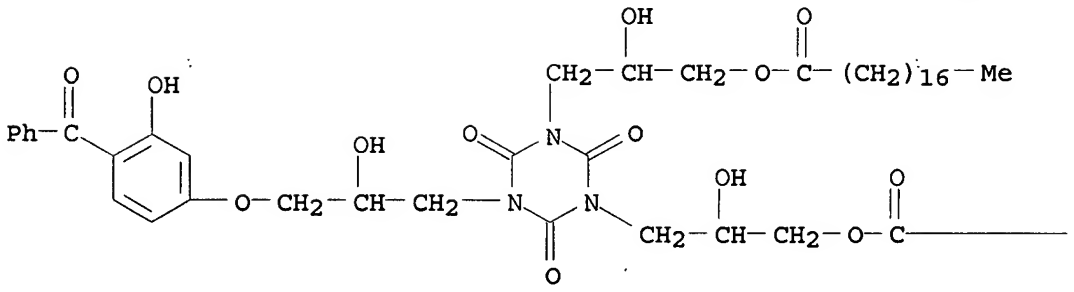

PAGE 1-B

— $(CH_2)_{16}$ — Me

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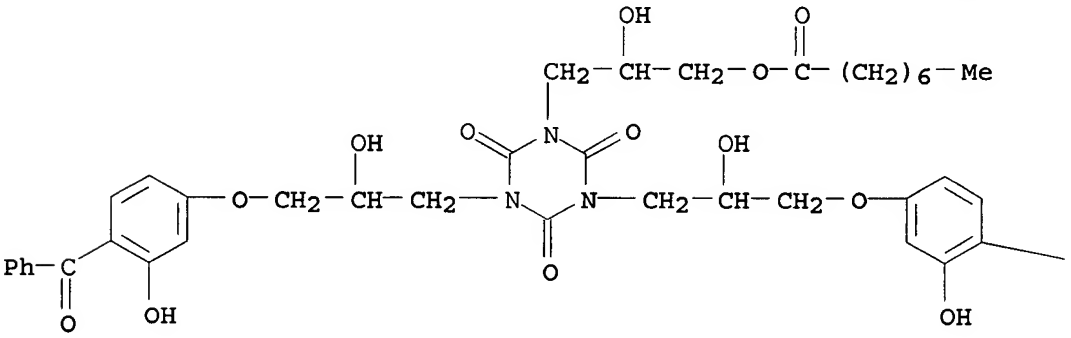
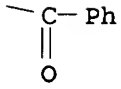
CN Octanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC C08L101-00; C08K005-34
CC 37-6 (Plastics Manufacture and Processing)
IT **84139-15-1 84139-16-2 84139-17-3**
84139-18-4 84139-19-5
(light stabilizers, for PVC and polypropylene)

L44 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:473406 HCAPLUS
DOCUMENT NUMBER: 97:73406
TITLE: Light stabilizers
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57042742	A	19820310	JP 1980-118183	19800826
JP 62045894	B	19870929		
PRIORITY APPLN. INFO.:			JP 1980-118183	19800826

ED Entered STN: 12 May 1984
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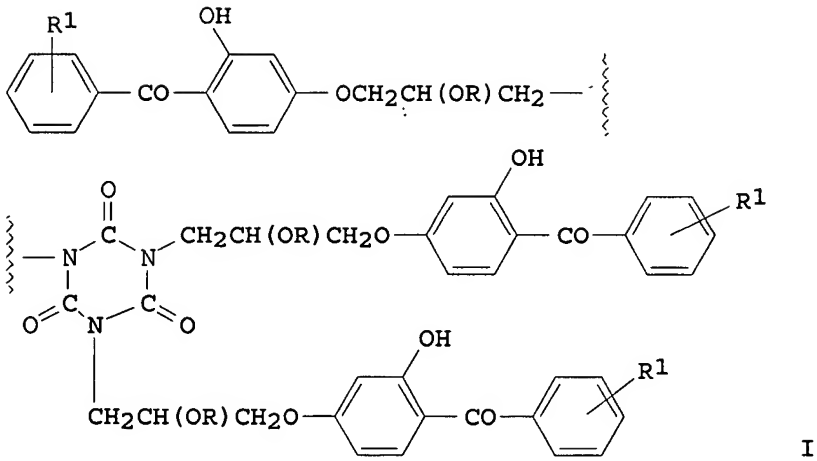


I

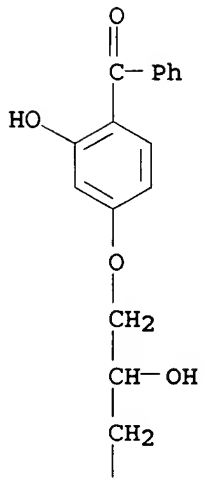
AB Compds. I (R = H, R1 = H [**82438-55-9**]; R = Ac, R1 = H [82447-33-4]; R = H, R1 = p-tert-Bu [**82438-56-0**]; R = H, R1 = o-Cl [**82438-57-1**]) are used light stabilizers for polyolefins. Thus, test pieces prepared from Noblen FS 200 [9003-07-0] containing Ca stearate 0.1%, 2,6-di-tert-butyl-4-methylphenol 0.05%, and I (R = H, R1 = H) 0.2% were irradiated for 360 h with a sunshine weatherometer before cracks formed on 1/3 of the surface, compared with 240 h for similar test pieces prepared from polymer not containing I.

IT **82438-55-9 82438-56-0 82438-57-1**
(light stabilizers, for polypropylene)

RN 82438-55-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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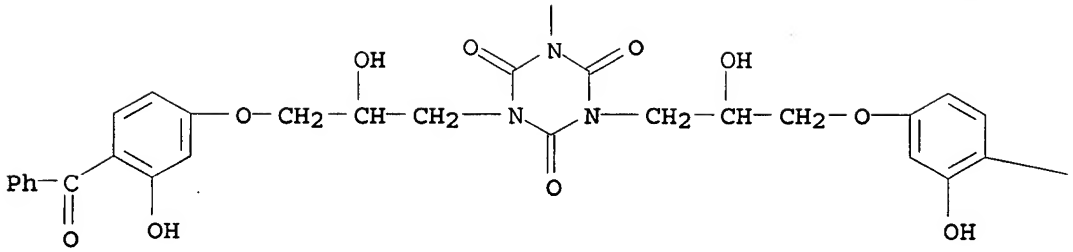

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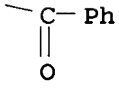
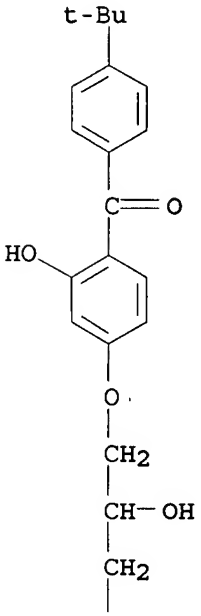


RN 82438-56-0 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[3-[4-[4-(1,1-dimethylethyl)benzoyl]-3-hydroxyphenoxy]-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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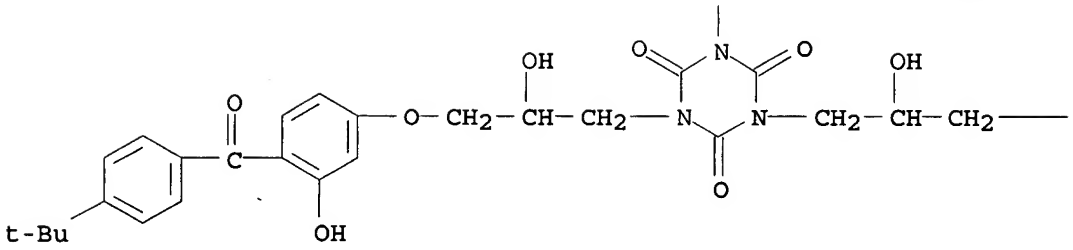

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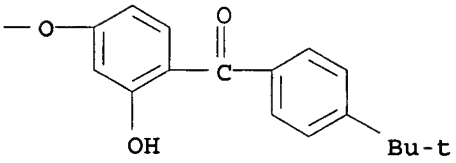
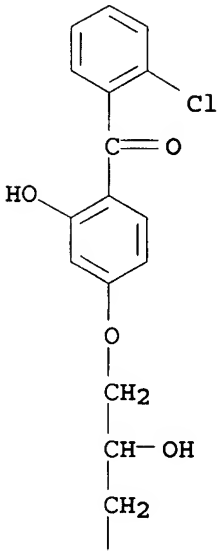


RN 82438-57-1 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[3-[4-(2-chlorobenzoyl)-3-hydroxyphenoxy]-2-hydroxypropyl]- (9CI) (CA INDEX

NAME)

PAGE 1-A



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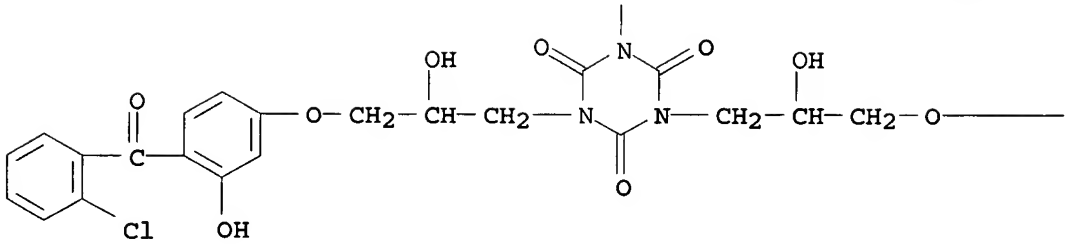

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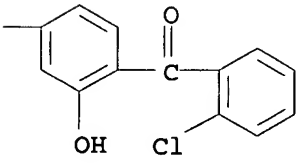

IC C08K005-34
ICA C07D251-34

CC 37-6 (Plastics Manufacture and Processing)
IT **82438-55-9 82438-56-0 82438-57-1**
82447-33-4
(light stabilizers, for polypropylene)

L44 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:122719 HCAPLUS
DOCUMENT NUMBER: 94:122719
TITLE: Isocyanuric acid derivatives as constructional glue adhesives
INVENTOR(S): Eritsyan, M. L.; Arutyunyan, B. S.; Esayan, K. A.
PATENT ASSIGNEE(S): USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1980, (27), 101. CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 749837	A1	19800723	SU 1977-2507534	19770715
PRIORITY APPLN. INFO.:			SU 1977-2507534 A	19770715

ED Entered STN: 12 May 1984
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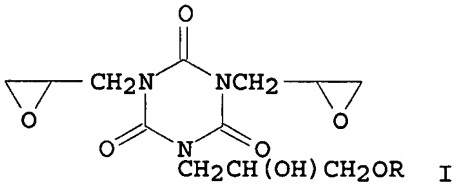
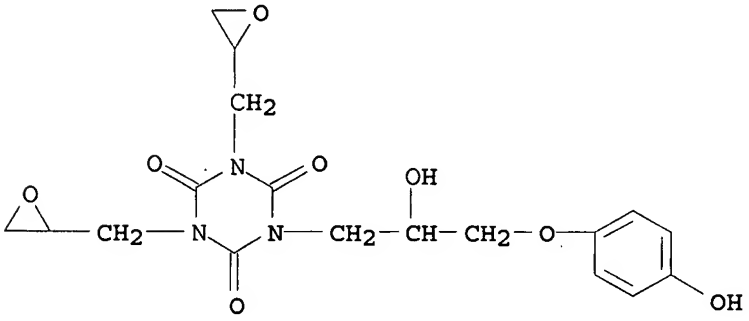


I

AB Isocyanuric acids I (R = p-C6H4CMe2C6H4OH-p, p-C6H4OH) have the title properties.
IT **76964-55-1**
(adhesives)
RN 76964-55-1 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-(4-hydroxyphenoxy)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC C07D251-34; C08K005-34
CC 37-3 (Plastics Fabrication and Uses)
IT **76964-55-1** 76964-56-2
(adhesives)

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                 681440-25-5/BI OR 9002-88-4/BI)
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L43         22 SEA ABB=ON  PLU=ON  (L41 OR L42)
L44         12 SEA ABB=ON  PLU=ON  L18
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#3

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr
AUG 09 2007
Pat. & T.M. Office

Access DB# 233749

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 8-7-07
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/530,349
Mail Box and Bldg/Room Location: 9C15 (Rem.) Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. see Bib.

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for a triazine trione oligomer compound or triazine trione polymer compound having a structure in which at least two triazine trione rings are linked through a linking gp. of formula (4) or (5) on the nitrogen atoms (see Cl. #1)

✓

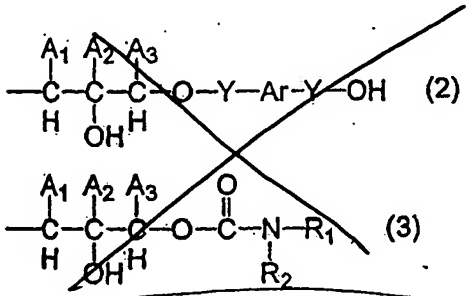
****

STAFF USE ONLY | Type of Search | Vendors and cost where applicable

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A composition for forming anti-reflective coating characterized in that the composition comprises a triazine trione compound having hydroxyalkyl structure as substituent on nitrogen atom, a triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or a triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom; wherein the triazine trione compound having hydroxyalkyl structure as substituent on nitrogen atom, the triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or the triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom is a triazine trione compound having a substituent of formula (2) or (3) as substituent on nitrogen atom, or a triazine trione oligomer compound or triazine trione polymer compound having a structure in which at least two triazine trione rings are linked through a linking group of formula (4) or (5) on the nitrogen atoms:



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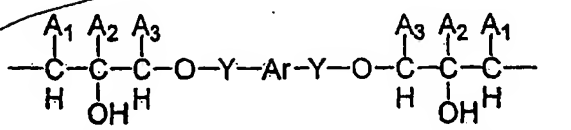

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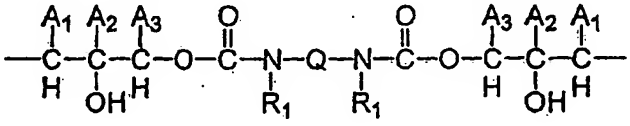
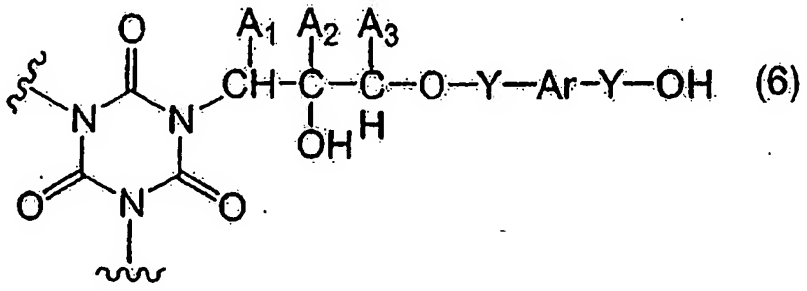


(5)

wherein A_1, A_2 and A_3 are independently of one another hydrogen atom, methyl or ethyl, each Y is independently a direct bond or -C(=O)-, Ar is benzene ring or naphthalene ring which may be substituted with C_{1-6} alkyl, phenyl, naphthyl, halogen atom, C_{1-6} alkoxycarbonyl, nitro, carboxy, cyano, C_{1-6} alkoxy, hydroxy, thiol, C_{1-6} alkylthio or amino, Q is C_{1-6} alkyl, C_{5-8} cycloalkyl, Ar or $-CH_2-Ar-CH_2-$, R_1 is C_{1-6} alkyl, phenyl or benzyl, R_2 is hydrogen atom, C_{1-6} alkyl, phenyl or benzyl.

2-3. (Canceled)

4. (Currently Amended) The composition for forming anti-reflective coating according to ~~claim 3,~~ claim 1, wherein the triazine trione compound having a substituent of formula (2) or (3) has a structure of formula (6) or (7):



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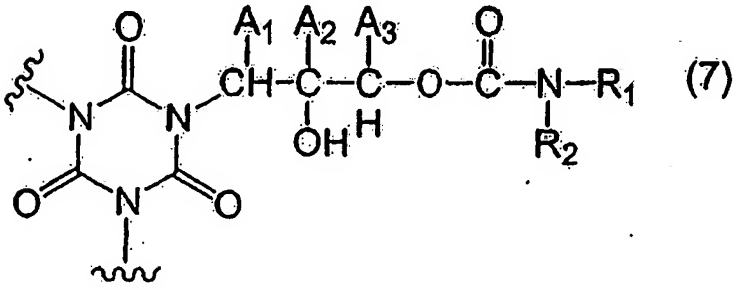

(7)

5. (Currently Amended) The composition for forming anti-reflective coating according to ~~claim 3,~~ claim 1, wherein the triazine trione oligomer compound or triazine trione polymer

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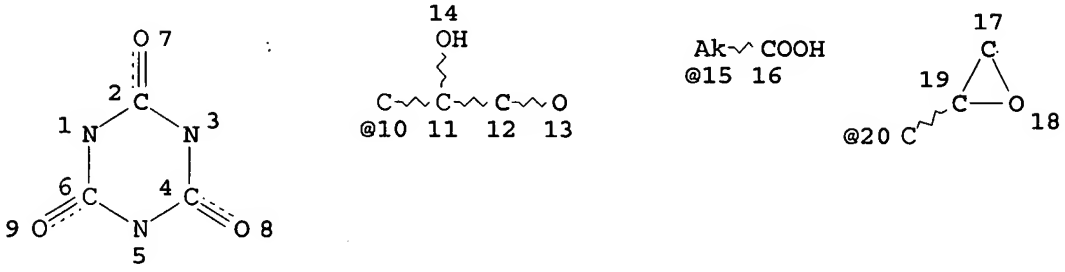

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DEFAULT ECLEVEL IS LIMITED

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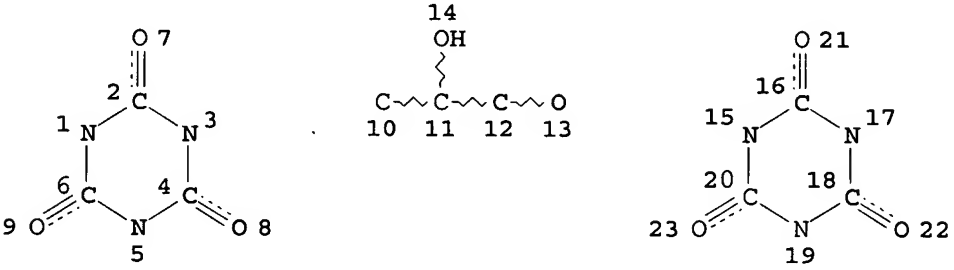


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  23

STEREO ATTRIBUTES: NONE
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L7             6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6


=> d l7 1-6 ibib ed abs hitstr hitind

L7   ANSWER 1 OF 6  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2004:333974  HCAPLUS
DOCUMENT NUMBER:          140:365660
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TITLE: Composition for forming antireflection film for lithography

INVENTOR(S): Kishioka, Takahiro; Mizusawa, Ken-ichi; Enomoto, Tomoyuki; Sakamoto, Rikimaru; Nakayama, Keisuke; Kawamura, Yasuo

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034148	A1	20040422	WO 2003-JP12875	20031008
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003271123	A1	20040504	AU 2003-271123	20031008
EP 1560070	A1	20050803	EP 2003-751376	20031008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1723418	A	20060118	CN 2003-80105388	20031008

PRIORITY APPLN. INFO.:

JP 2002-295777	A	20021009
JP 2003-126886	A	20030502
WO 2003-JP12875	W	20031008

ED Entered STN: 23 Apr 2004

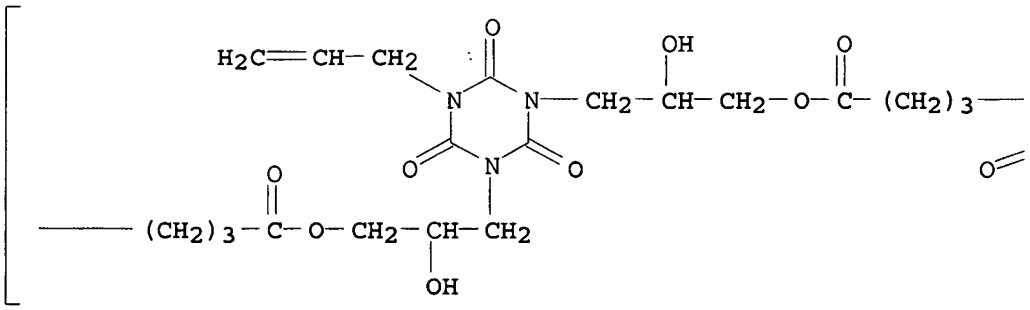
AB A composition for forming an antireflection film comprises a compound, an oligomer or a polymer comprising a triazine-trione moiety having a hydroxyalkyl structure as a substitute on a nitrogen atom. The composition can provide an antireflection film which exhibits good absorptivity for a light having a wavelength suitable for use in the production of a semiconductor device, has high antireflection effect, and exhibits a dry etching rate greater than that of a photoresist layer.

IT **681440-20-0P**
(oligomeric; photolithog antireflective film compns. containing)

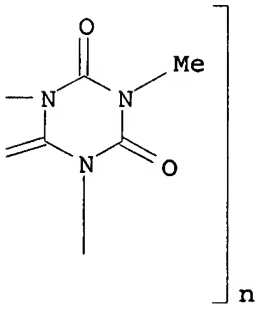
RN 681440-20-0 HCAPLUS

CN Poly[(dihydro-5-methyl-2,4,6-trioxo-1,3,5-triazine-1,3(2H,4H)-diyl)(4-oxo-1,4-butanediyl)oxy(2-hydroxy-1,3-propanediyl)[dihydro-2,4,6-trioxo-5-(2-propenyl)-1,3,5-triazine-1,3(2H,4H)-diyl](2-hydroxy-1,3-propanediyl)oxy(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A

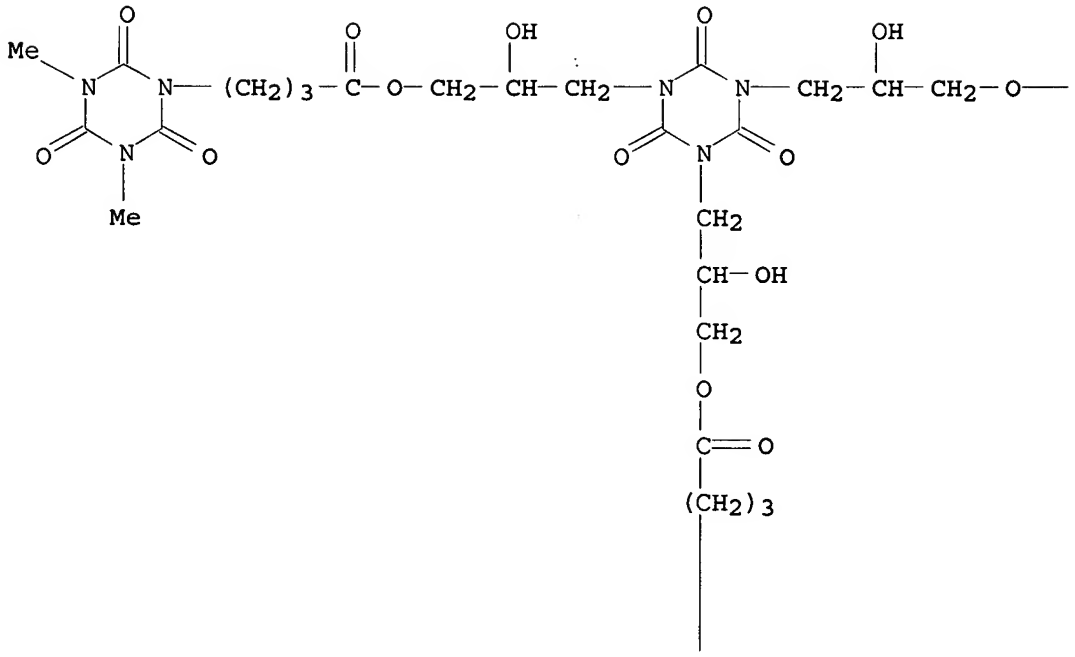


PAGE 1-B

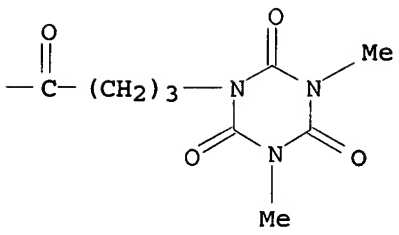


IT **681440-21-1P 681440-22-2P**
(photolithog antireflective film compns. containing)
RN 681440-21-1 HCAPLUS
CN 1,3,5-Triazine-1(2H)-butanoic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

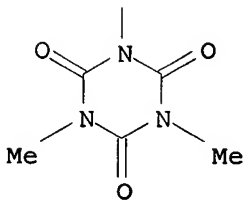
PAGE 1-A



PAGE 1-B

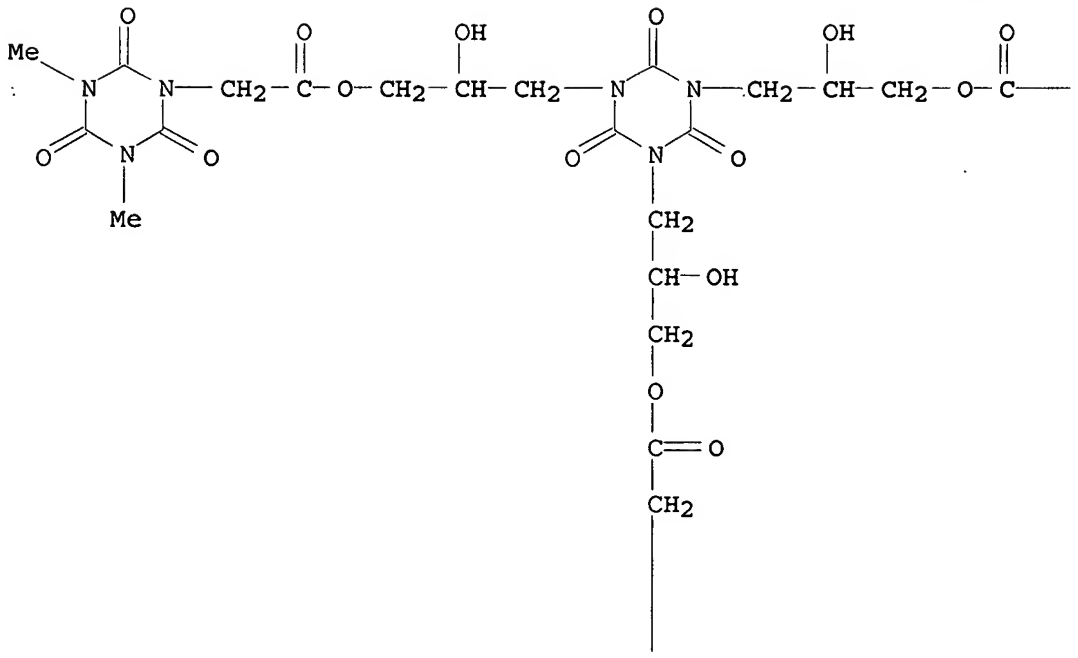


PAGE 2-A

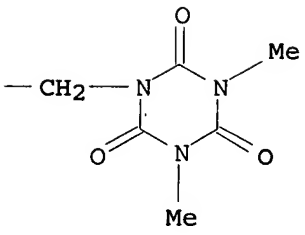


RN 681440-22-2 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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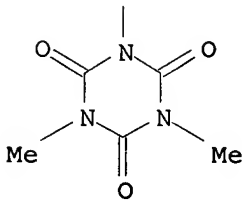


IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT 681440-09-5P 681440-10-8P 681440-11-9P 681440-12-0P
681440-13-1P 681440-14-2P 681440-15-3P 681440-16-4P

681440-17-5P 681440-19-7P **681440-20-0P**
(oligomeric; photolithog antireflective film compns. containing)
IT **681440-21-1P 681440-22-2P** 681440-23-3P
(photolithog antireflective film compns. containing)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:305563 HCAPLUS
DOCUMENT NUMBER: 140:329574
TITLE: Heat- or photo-curable composition for negative-working lithographic plate
INVENTOR(S): Fujimaki, Kazuhiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 94 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

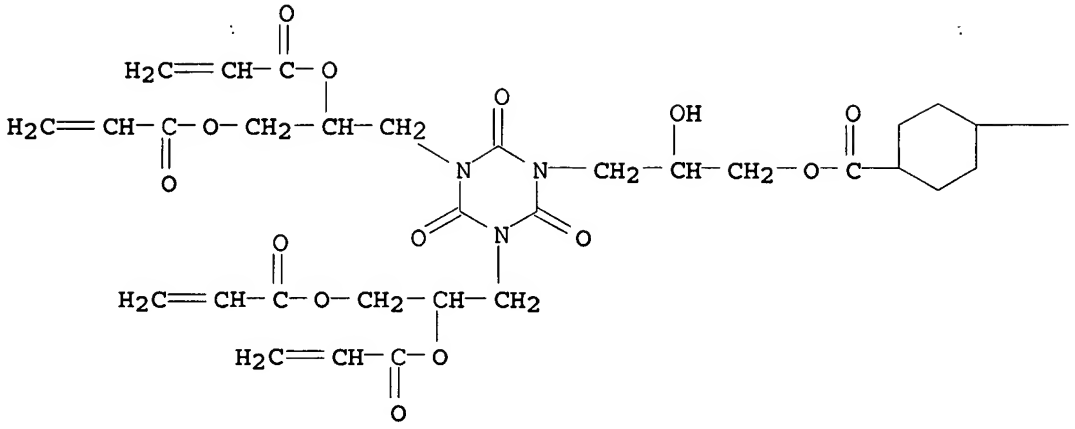
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004117555	A	20040415	JP 2002-277719	20020924
PRIORITY APPLN. INFO.:			JP 2002-277719	20020924

ED Entered STN: 15 Apr 2004
AB The composition contains (A) a polymerizable compound having ≥1 ethylenic unsatd. group and ≥2 cyclic structures from ≥1 amide structure and (B) a compound generating radical by heat or light. The composition shows good storage stability, high sensitivity, developability, and gives neg. lithog. printing plate with good printing durability especially on burning treatment.
IT **679408-24-3P 679408-26-5P**
(heat- or photo-curable composition for neg.-working lithog. plate)
RN 679408-24-3 HCAPLUS
CN 1,4-Cyclohexanedicarboxylic acid, bis[3-[3,5-bis[2,3-bis[(1-oxo-2-propenyl)oxy]propyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl] ester, polymer with 1,2-ethanediyl bis(2-methyl-2-propenoate), methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 679408-11-8
CMF C56 H66 N6 O28

PAGE 1-A



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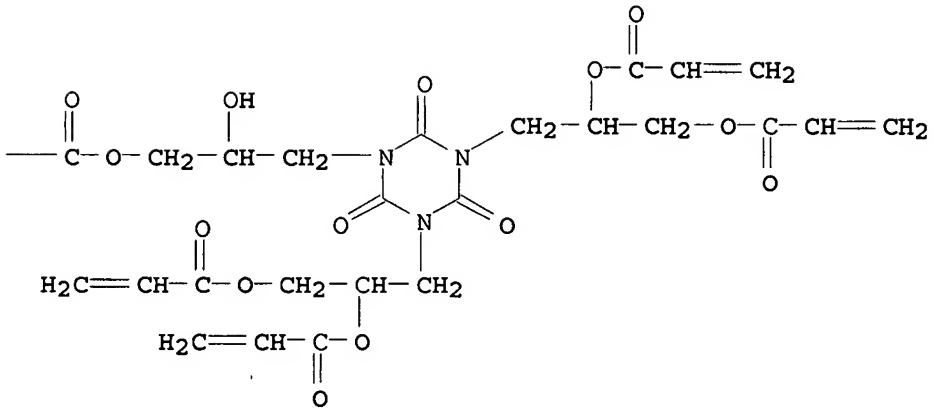
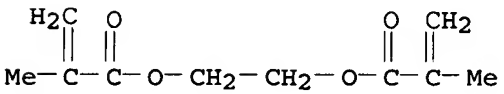


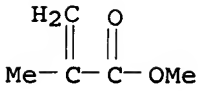
CM 2

CRN 97-90-5
CMF C10 H14 O4



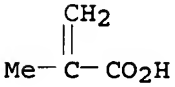
CM 3

CRN 80-62-6
CMF C5 H8 O2



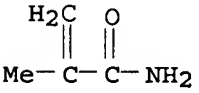
CM 4

CRN 79-41-4
CMF C4 H6 O2



CM 5

CRN 79-39-0
CMF C4 H7 N O

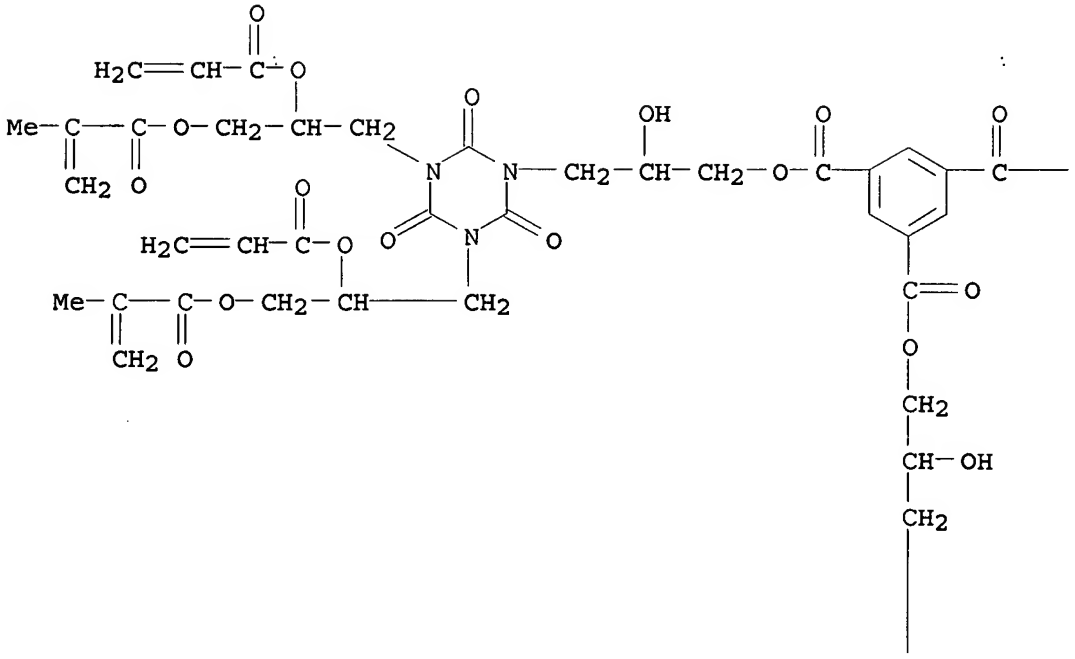


RN 679408-26-5 HCAPLUS
CN 1,3,5-Benzenetricarboxylic acid, tris[2-hydroxy-3-[tetrahydro-3,5-bis[3-[(2-methyl-1-oxo-2-propenyl)oxy]-2-[(1-oxo-2-propenyl)oxy]propyl]-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]propyl] ester, polymer with 1,2-ethanediyl bis(2-methyl-2-propenoate), methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

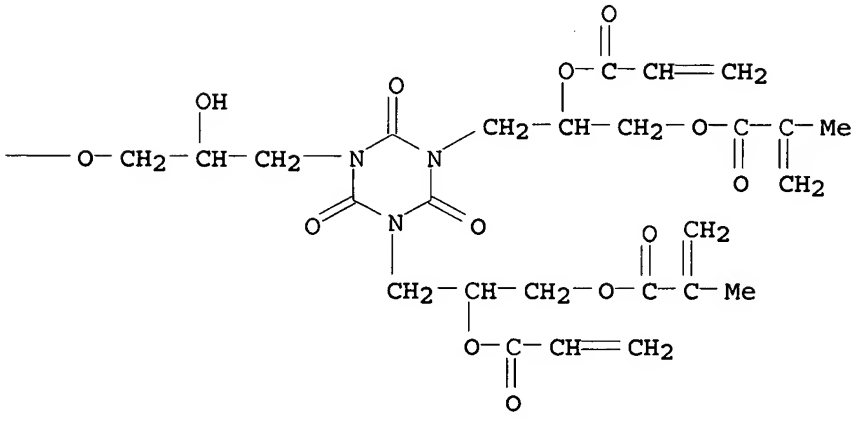
CM 1

CRN 679408-12-9
CMF C87 H99 N9 O42

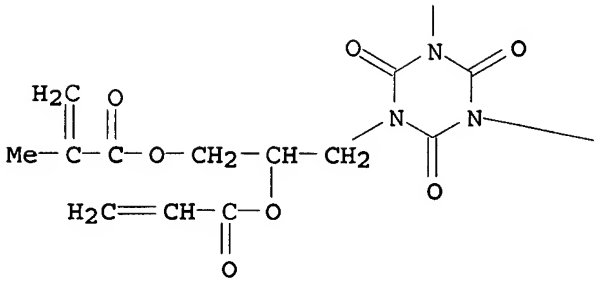
PAGE 1-A



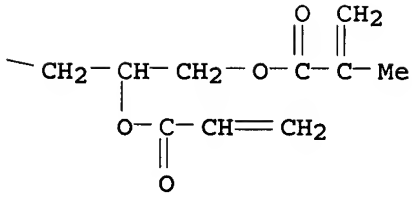
PAGE 1-B



PAGE 2-A

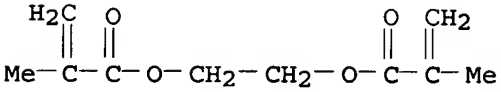


PAGE 2-B



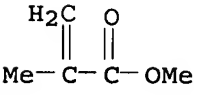
CM 2

CRN 97-90-5
CMF C10 H14 O4



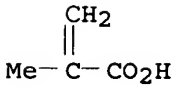
CM 3

CRN 80-62-6
CMF C5 H8 O2



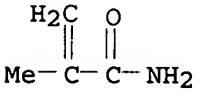
CM 4

CRN 79-41-4
CMF C4 H6 O2



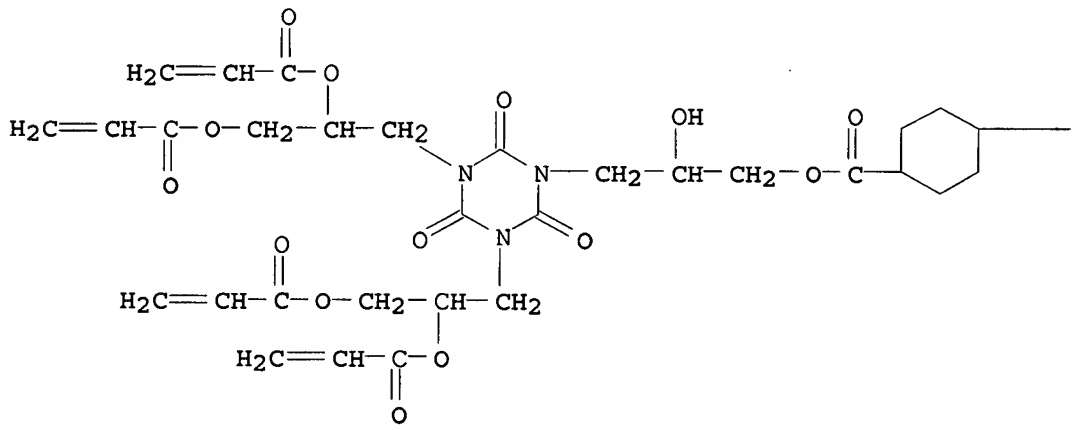
CM 5

CRN 79-39-0
CMF C4 H7 N O



IT **679408-11-8 679408-12-9**
(heat- or photo-curable composition for neg.-working lithog. plate)
RN 679408-11-8 HCAPLUS
CN 1,4-Cyclohexanedicarboxylic acid, bis[3-[3,5-bis[2,3-bis[(1-oxo-2-propenyl)oxy]propyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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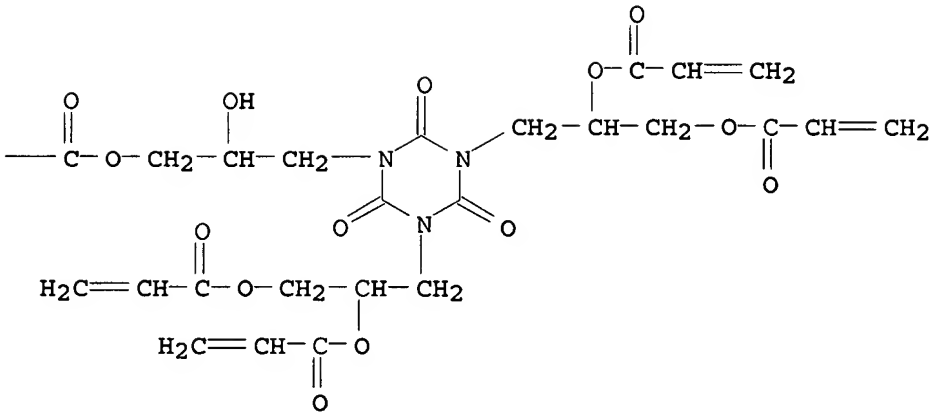
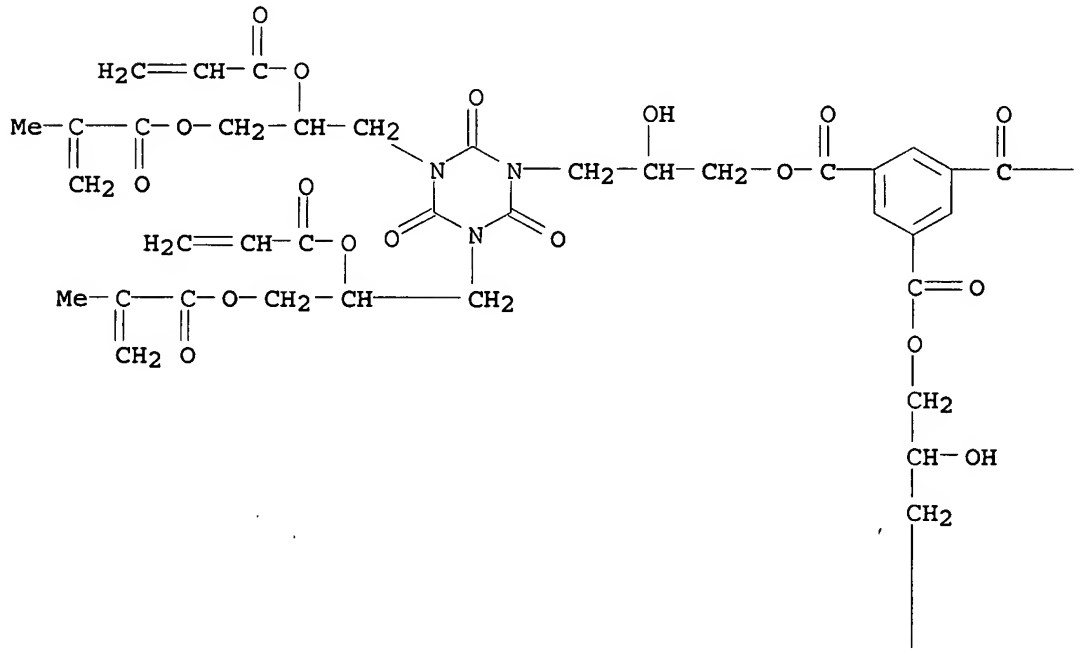


RN 679408-12-9 HCAPLUS
CN 1,3,5-Benzenetricarboxylic acid, tris[2-hydroxy-3-[tetrahydro-3,5-bis[3-[(2-methyl-1-oxo-2-propenyl)oxy]-2-[(1-oxo-2-propenyl)oxy]propyl]-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]propyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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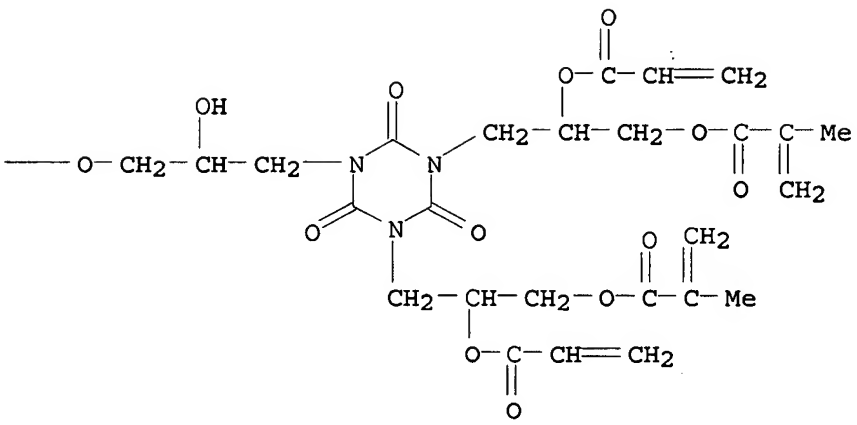

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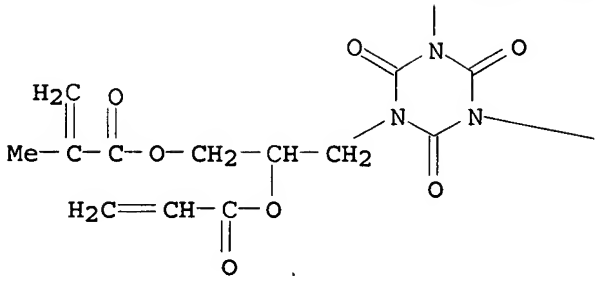

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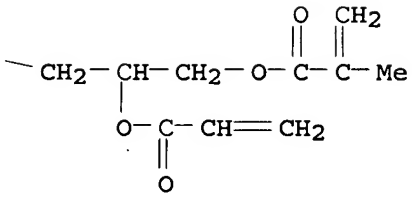


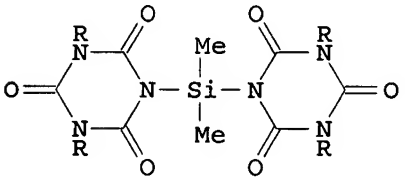
IC ICM G03F007-027
ICS C08F020-36; G02B005-20; G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT 679407-95-5P 679408-01-6P 679408-08-3P 679408-15-2P
679408-16-3P 679408-17-4P 679408-18-5P 679408-19-6P
679408-20-9P 679408-21-0P 679408-22-1P 679408-23-2P
679408-24-3P 679408-25-4P **679408-26-5P**
679408-27-6P 679408-28-7P 679408-29-8P 679408-30-1P

679408-31-2P 679408-32-3P 679408-33-4P 679408-34-5P
679408-35-6P
(heat- or photo-curable composition for neg.-working lithog. plate)
IT 679407-93-3 679407-94-4 679407-96-6 679407-97-7 679407-98-8
679407-99-9 679408-00-5 679408-02-7 679408-03-8 679408-04-9
679408-05-0 679408-06-1 679408-07-2 679408-09-4 679408-10-7
679408-11-8 679408-12-9 679408-13-0 679408-14-1
(heat- or photo-curable composition for neg.-working lithog. plate)

L7 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:477891 HCAPLUS
DOCUMENT NUMBER: 107:77891
TITLE: New organosilicon bis-derivatives of isocyanuric acid
AUTHOR(S): Eritsyan, M. L.; Karamyan, R. A.; Khananashvili, L. M.
CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR
SOURCE: Soobshcheniya Akademii Nauk Gruzinskoi SSR (1986), 123(3), 549-52
CODEN: SAKNAH; ISSN: 0002-3167
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 107:77891
ED Entered STN: 05 Sep 1987
GI



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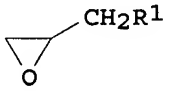
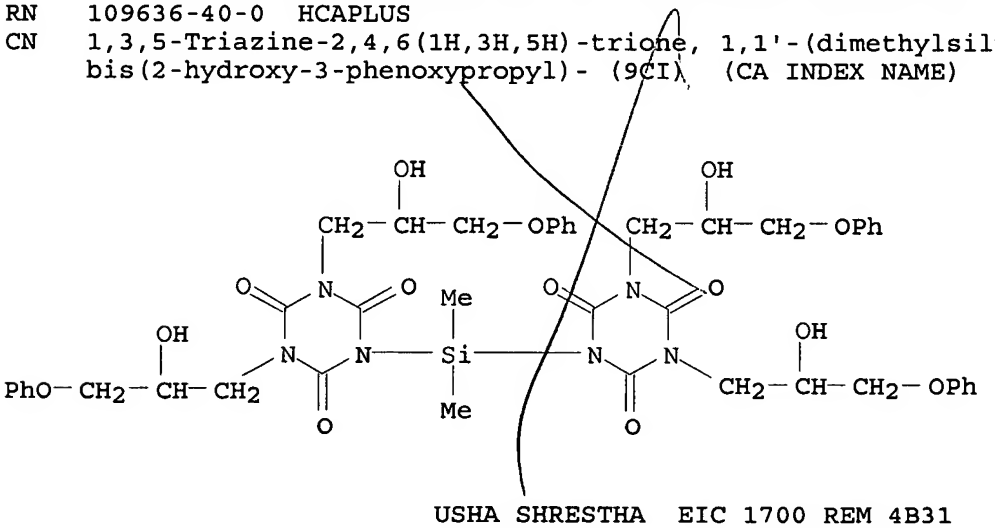


II

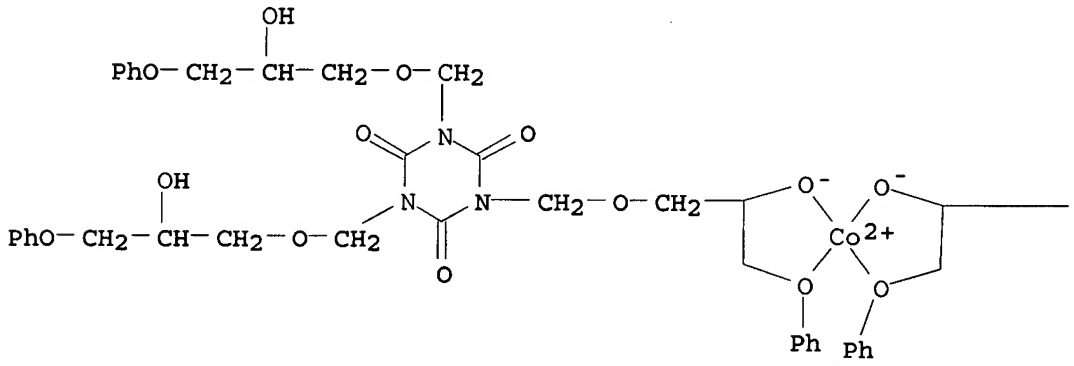
AB Silylbis(isocyanurate) I (R = H) was prepared in 85% yield by treating monosodium isocyanurate with Me2SiCl2. Treating I (R = H) with HCHO and oxiranes II (R1 = Cl, PhO) gave 65-96% I [R = CH2OH, CH2CH(OH)CH2R1], which, on treatment with maleic anhyddride gave 93-97% I [R = CH2O2CCH:CHCO2H; CH2CH(CH2R1)O2CCH:CHCO2H].
IT **109636-40-0P**
(preparation and reaction of, with maleic anhydride)
RN 109636-40-0 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,1'-(dimethylsilylene)bis[3,5-bis(2-hydroxy-3-phenoxypropyl)- (9CI) (CA INDEX NAME)



CC 29-6 (Organometallic and Organometalloidal Compounds)
IT 109636-38-6P 109636-39-7P **109636-40-0P**
(preparation and reaction of, with maleic anhydride)

L7 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:184725 HCAPLUS
DOCUMENT NUMBER: 100:184725
TITLE: Organometallic complexes based on tris-substituted derivatives of isocyanuric acid
AUTHOR(S): Eritsyan, M. L.; Karamyan, R. A.; Eritsyan, N. P.; Karapetyan, K. A.
CORPORATE SOURCE: Gos. Nauchno-Issled. Proektn. Inst. Polim. Kleev, Kirovakan, USSR
SOURCE: Koordinatsionnaya Khimiya (1984), 10(2), 195-200
CODEN: KOKHDC; ISSN: 0132-344X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 26 May 1984
AB [CoL2Q2]n [HL = tris-1,3,5-(2'-hydroxy-3'-chloropropyl)isocyanuric acid (I), Q = NH3; HL = tris-1,3,5-(2'-hydroxy-3'-phenoxypropyl)isocyanuric acid (II), tris-1,3,5-[(2'-hydroxy-3'-phenoxypropoxy)methyl]isocyanuric acid (III), Q = NH3, Et2NH, HN(C2H4OH)2] and [CuL2Q2]n [HL = I, Q = NH3; HL = tris-1,3,5-(hydroxymethyl)isocyanuric acid, II, III, Q = NH3, Et2NH, HN(C2H4OH)2] were prepared and characterized by IR spectra. [CoL2]n and [CuL2]n were also prepared
IT **89527-97-9P 89527-99-1P**
(preparation and reactions with amines or alc. amines)
RN 89527-97-9 HCAPLUS
CN Cobalt, bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato]-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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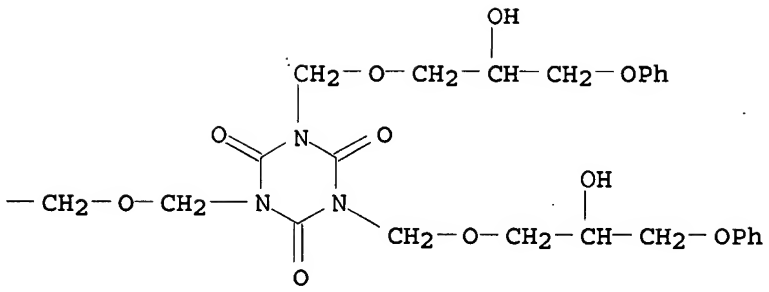
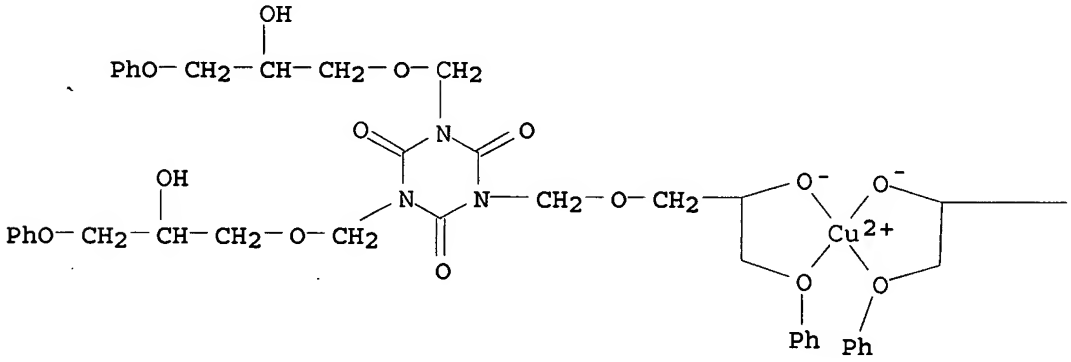


RN 89527-99-1 HCAPLUS
CN Copper, bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato]- (9CI) (CA INDEX NAME)

PAGE 1-A



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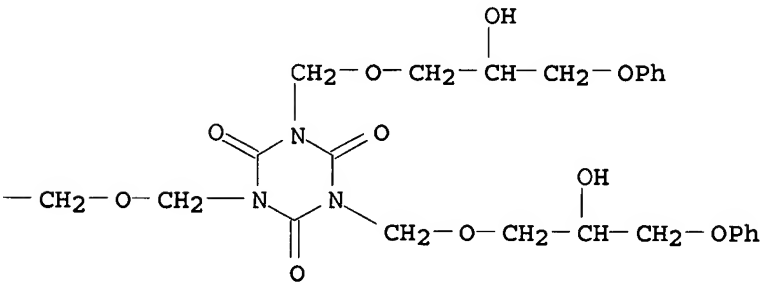
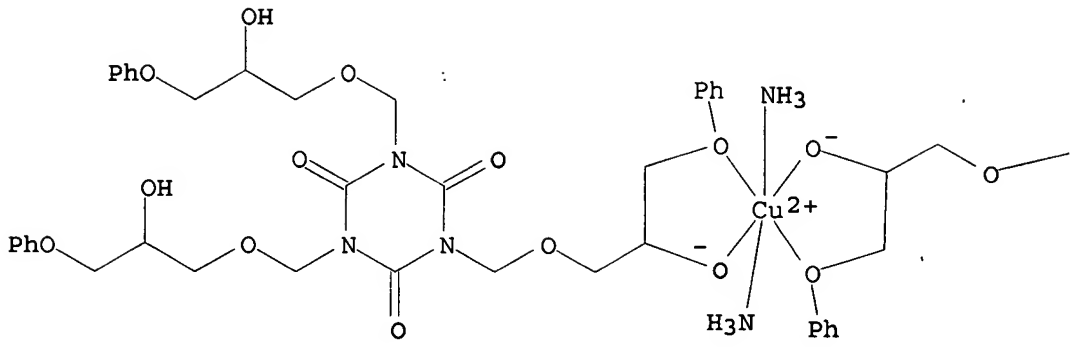


IT **89527-94-6P 89528-26-7P 89551-34-8P**
89741-97-9P
(preparation of)
RN 89527-94-6 HCAPLUS
CN Copper, diamminebis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato]- (9CI) (CA INDEX NAME)

PAGE 1-A



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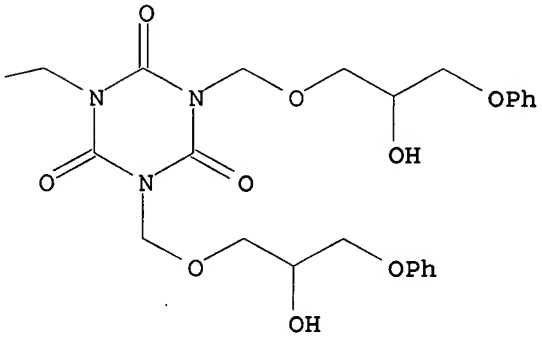
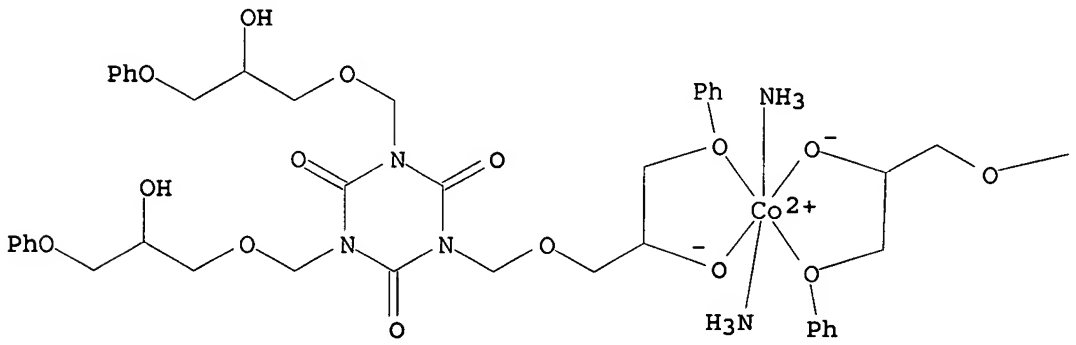


RN 89528-26-7 HCAPLUS
CN Cobalt, diamminebis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato]- (9CI) (CA INDEX NAME)

PAGE 1-A



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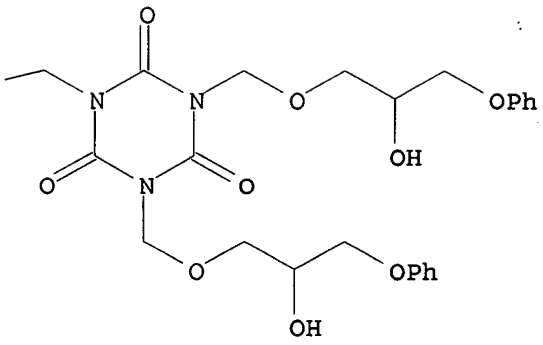
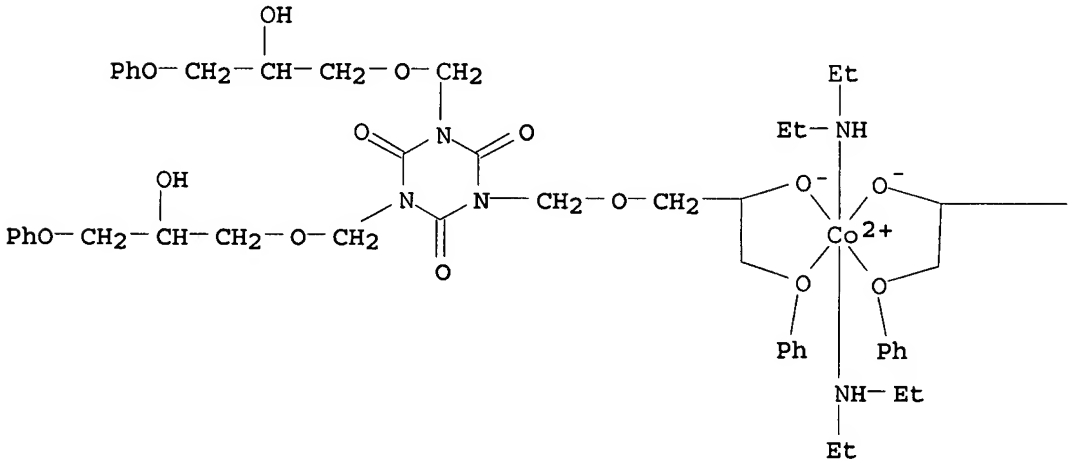


RN 89551-34-8 HCAPLUS
CN Cobalt, bis(N-ethylethanamine)bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato]- (9CI) (CA INDEX NAME)

PAGE 1-A



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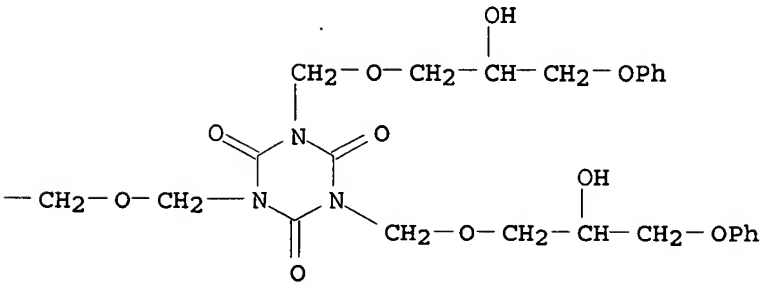
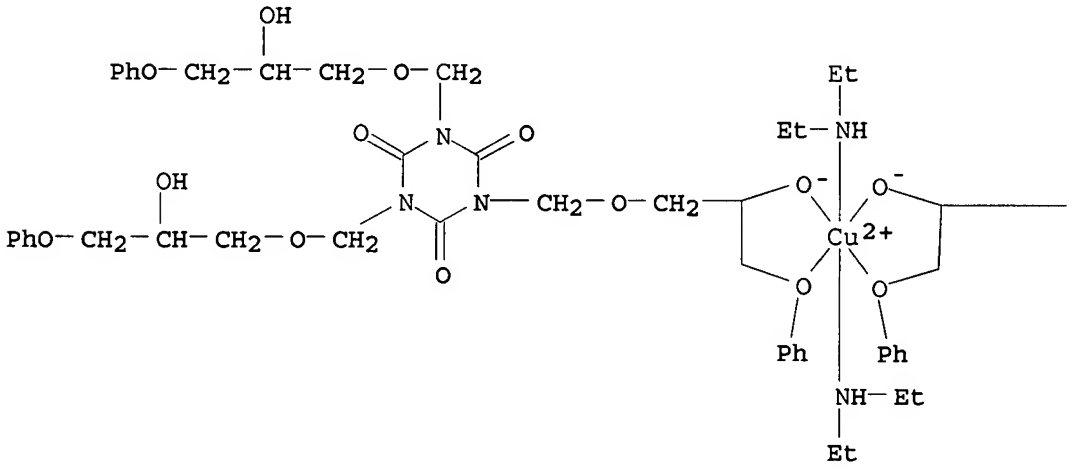


RN 89741-97-9 HCAPLUS
CN Copper, bis(N-ethylethanamine)bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato]- (9CI) (CA INDEX NAME)

PAGE 1-A



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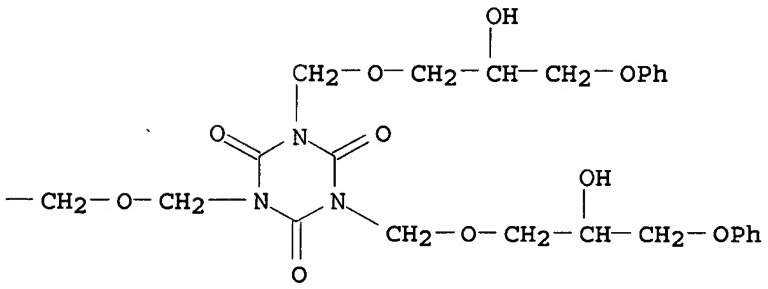


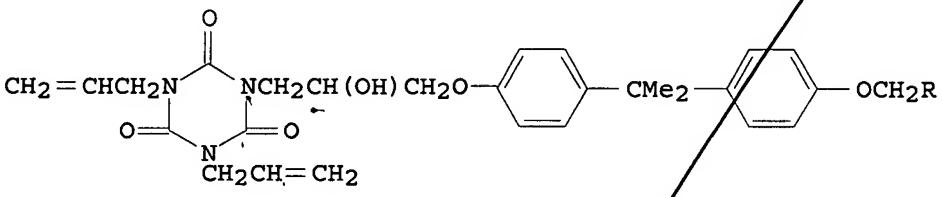
CC 78-7 (Inorganic Chemicals and Reactions)
IT 89527-96-8P **89527-97-9P** 89527-98-0P **89527-99-1P**
89551-31-5P 89551-32-6P 89729-12-4P
(preparation and reactions with amines or alc. amines)
IT 111-42-2DP, cobalt and copper complexes 7440-48-4DP, complexes with isocyanuric acid derivs. 7440-50-8DP, complexes with isocyanuric acid derivs. 10471-40-6DP, cobalt and copper complexes 17989-80-9DP, cobalt and copper complexes 75513-67-6DP, cobalt and copper complexes 89527-93-5P **89527-94-6P** 89527-95-7P
89528-24-5P 89528-25-6P **89528-26-7P** 89551-29-1P
89551-30-4P 89551-33-7P **89551-34-8P** **89741-97-9P**
89933-39-1P
(preparation of)

L7 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1977:603166 HCAPLUS

DOCUMENT NUMBER: 87:203166
TITLE: Diallylisocyanuric acid derivatives as modifiers for latex coatings
INVENTOR(S): Zalinyan, M. G.; Avetisyan, G. V.; Arutyunyan, B. S.; Eritsyan, M. L.; Movsisyan, G. V.
PATENT ASSIGNEE(S): State Scientific-Research and Design Institute of Polymeric Adhesives, USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1977, 54(31), 64. CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
SU 569574	A1	19770825	SU 1975-2170870		19750910
PRIORITY APPLN. INFO.:			SU 1975-2170870	A	19750910

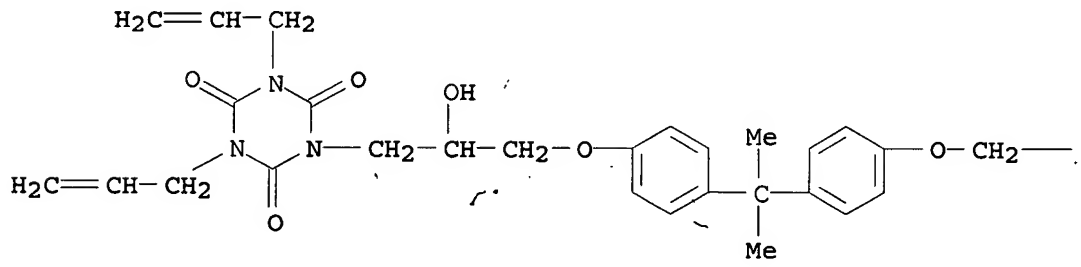
ED Entered STN: 12 May 1984
GI



I

AB Isocyanurate derivs. [I, R = oxiranyl, 1-hydroxy-2-(2,4,6-trioxo-3,5-diallylhexahydro-1-triazinyl)ethyl] are modifiers for latex coatings.
IT **64936-28-3**
(modifiers, for latex coatings)
RN 64936-28-3 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,1'-[(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]]bis[3,5-di-2-propenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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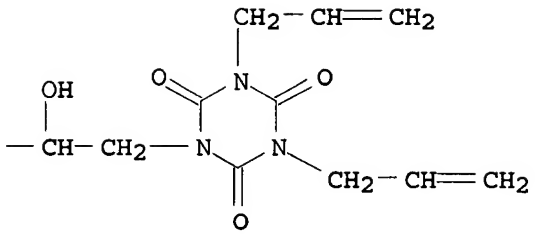
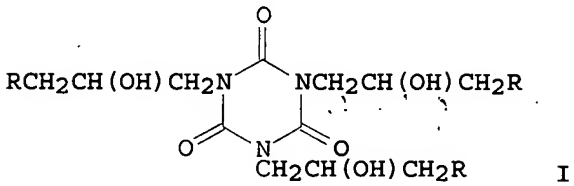
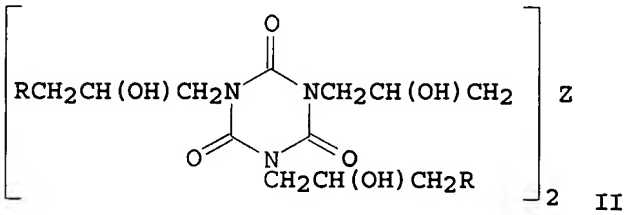


IC C07D251-34
CC 42-7 (Coatings, Inks, and Related Products)
IT 64819-57-4 **64936-28-3**
(modifiers, for latex coatings)

L7 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1977:140859 HCAPLUS
DOCUMENT NUMBER: 86:140859
TITLE: Study of the hardening of oligoesters with unsaturated end groups containing an s-triazine ring
AUTHOR(S): Kutepov, D. F.; Borisova, L. N.; Skubin, V. K.; Basov, M. I.
CORPORATE SOURCE: Mosk. Khim.-Tekhnol. Inst. im. Mendeleeva, Moscow, USSR
SOURCE: Deposited Doc. (1974), VINITI 2034-74, 15 pp. Avail.: BLLD
DOCUMENT TYPE: Report
LANGUAGE: Russian
ED Entered STN: 12 May 1984
GI



I



II

AB Homopolymn. of a triazine-containing acrylate (I, R = CH2:CHCO2) [38817-87-7] and methacrylate (I, R = CH2:CMeCO2) [54316-76-6], and of their ethylene glycol-modified analogs [II (R = CH2:CHCO2, Z = OCH2CH2O) [**62202-54-4**] and II (R = CH2:CMeCO2, Z = OCH2CH2O)

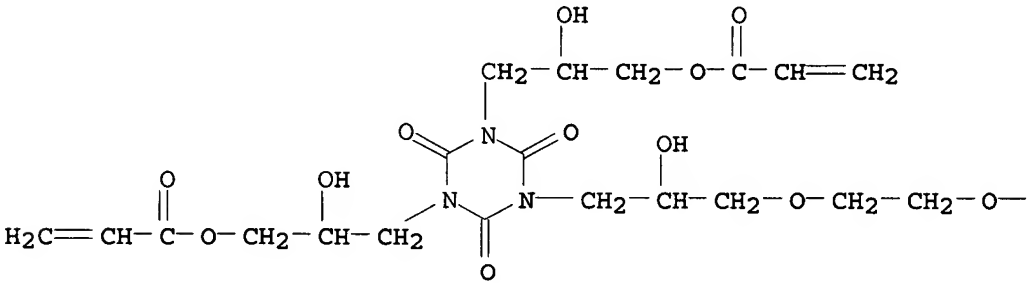
[**62228-34-6**]] or diethylene glycol-modified analogs [II [R = CH2:CHCO2, Z = (OCH2CH2)2O] [**62202-55-5**] and II [R = CH2:CMeCO2, Z = (OCH2CH2)2O] [**62202-56-6**]] followed 1st order kinetics with variable rate consts. The observed decrease in the rate constant in the course of the polymerization was not accompanied by a change in the reaction order and indicated that at a given conversion stage the propagation step became diffusion controlled. This autoretardation occurred at lower conversions for the methacrylates than for the acrylates. The optimum conditions of the polymerization were determined (best catalyst methyl ethyl ketone peroxide [1338-23-4]). Comparison of thermal stability of the resulting polymers with that of TGM-3 and MGF-9 indicated beneficial effects from the presence of the triazine rings.

IT **62202-54-4 62202-55-5 62202-56-6 62228-34-6**
(polymerization of, kinetics of)

RN 62202-54-4 HCAPLUS

CN 2-Propenoic acid, 1,2-ethanediylbis[oxy(2-hydroxy-3,1-propanediyl)[(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyl)bis(2-hydroxy-3,1-propanediyl)]] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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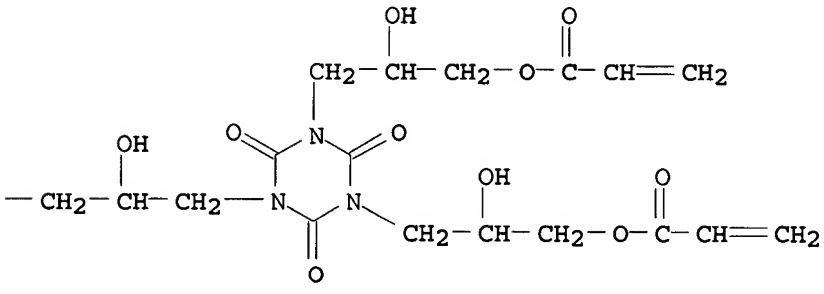
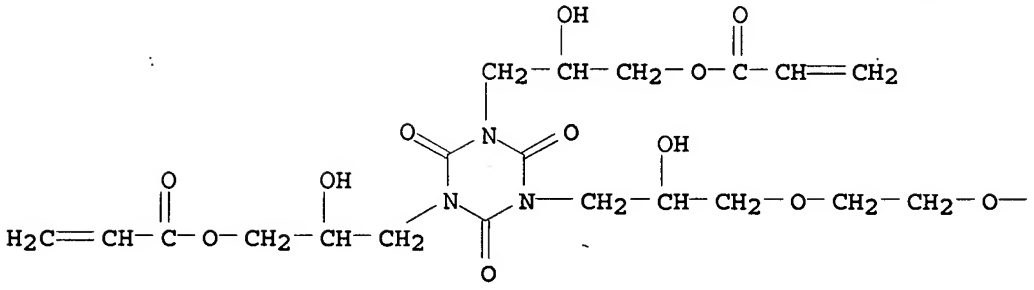


RN 62202-55-5 HCAPLUS

CN 2-Propenoic acid, [oxybis[2,1-ethanediyloxy(2-hydroxy-3,1-propanediyl)(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyl)bis(2-hydroxy-3,1-propanediyl)]] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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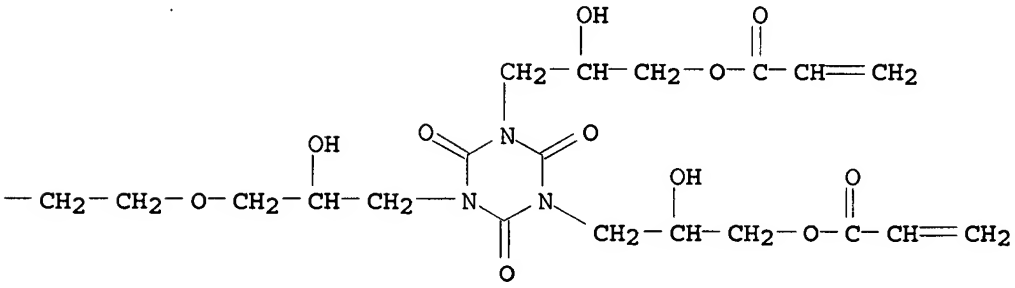
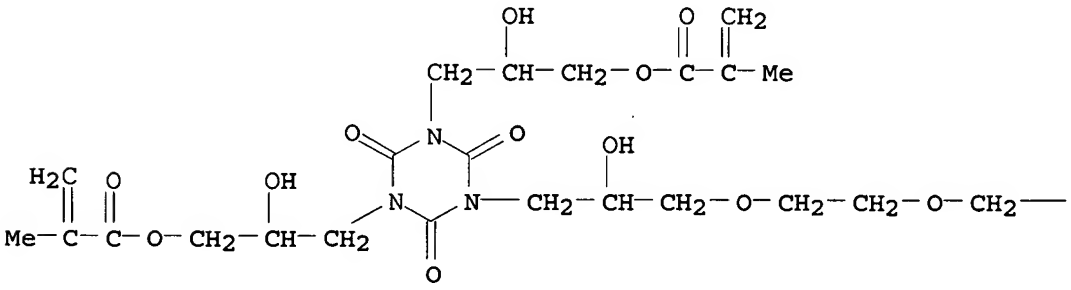


RN 62202-56-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, [oxybis[2,1-ethanediyloxy(2-hydroxy-3,1-propanediyl)(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyl)bis(2-hydroxy-3,1-propanediyl)]] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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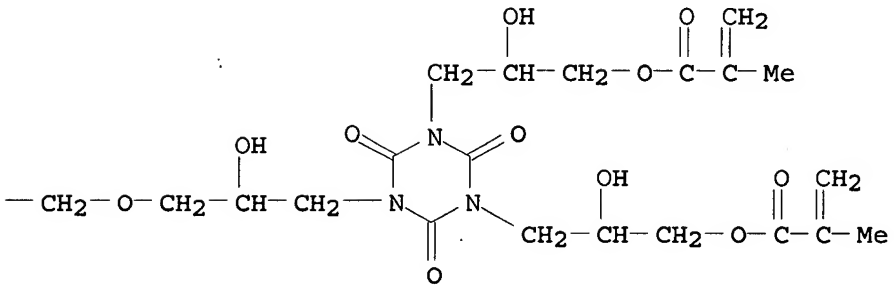
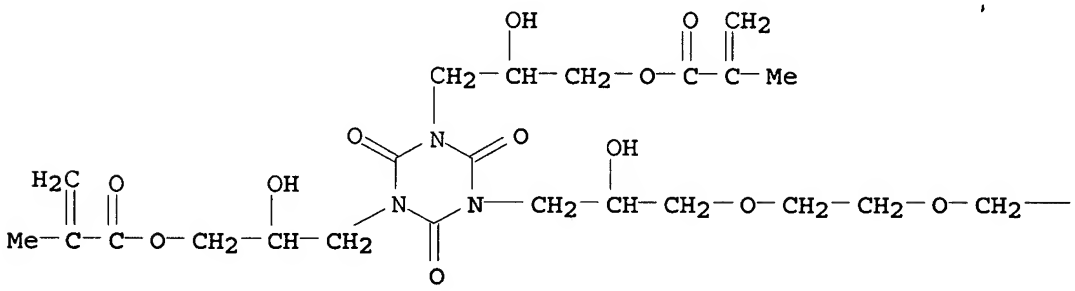


RN 62228-34-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis[oxy(2-hydroxy-3,1-propanediyl)(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyl)bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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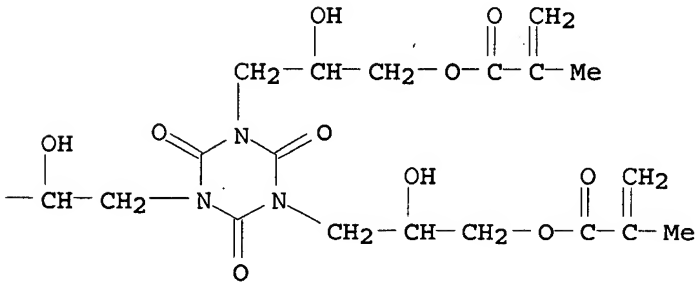

CC 36-6 (Plastics Manufacture and Processing)
IT 38817-87-7 54316-76-6 **62202-54-4 62202-55-5 62202-56-6 62228-34-6**
(polymerization of, kinetics of)

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#3

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.
AUG 09 REC'D
Pat. & T.M. Office

Access DB# 233748

SEARCH REQUEST FORM

3499

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 8-7-07
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/530,349
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL

(Rem.)

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. see Bib.

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for the
reaction product of. Cl. #6

****

STAFF USE ONLY Type of Search Vendors and cost where applicable

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Bib Data Sheet

CONFIRMATION NO. 7775

SERIAL NUMBER	FILING OR 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/530,349	04/06/2005 RULE	430	1752	123418

APPLICANTS

Takahiro Kishioka, Nei-gun, JAPAN;
Ken-ichi Mizusawa, Chiyoda-ku, JAPAN;
Tomoyuki Enomoto, Nei-gun, JAPAN;
Rikimaru Sakamoto, Nei-gun, JAPAN;
Keisuke Nakayama, Nei-gun, JAPAN;
Yasuo Kawamura, Funabashi-shi, JAPAN;

** CONTINUING DATA **********

This application is a 371 of PCT/JP03/12875 10/08/2003 KA

** FOREIGN APPLICATIONS **********

JAPAN 2002-295777 10/09/2002
JAPAN 2003-126886 05/02/2003 KA

IF REQUIRED, FOREIGN FILING LICENSE GRANTED **
09/18/2006

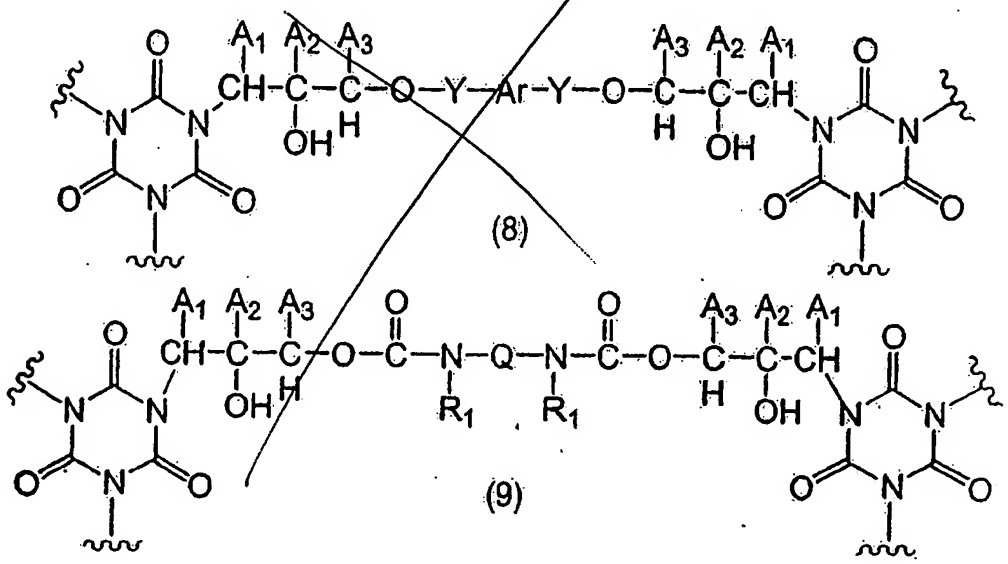
Foreign Priority claimed	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
☑ yes ☐ no 35 USC 119 (a-d) conditions met ☑ yes ☐ no ☐ Met after Allowance Verified and Acknowledged Examiner's Signature Initials KA	JAPAN	0	19	1

ADDRESS
25944

TITLE
Composition for forming anti-reflective coating for use in lithography

FILING FEE RECEIVED	FEES: Authority has been given in Paper	
1030	No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

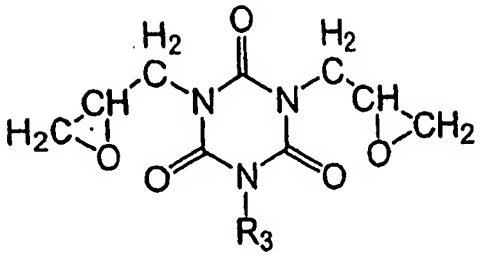
compound having a structure in which at least two triazine trione rings are linked through a linking group of formula (4) or (5) on the nitrogen atoms has a structure of formula (8) or (9):



(8)

(9)

6. (Currently Amended) ~~The composition~~ A composition for forming anti-reflective coating characterized in that the composition comprises a triazine trione compound having hydroxyalkyl structure as substituent on nitrogen atom, a triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or a triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom; and ~~for forming anti-reflective coating according to claim 1,~~ wherein the triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom is a reaction product of a compound of formula (10) with a compound of formula (11) or (12):



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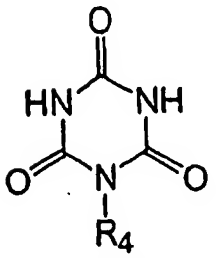

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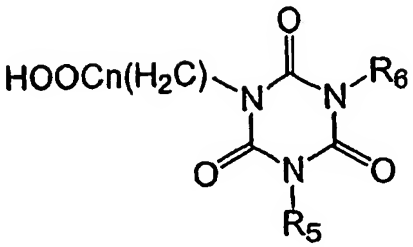

(12)

wherein R_3 is C_{1-6} alkyl, C_{3-6} alkenyl, phenyl, benzyl or 2,3-epoxypropyl, R_4 and R_5 are C_{1-6} alkyl, C_{3-6} alkenyl, phenyl or benzyl, R_6 is C_{1-6} alkyl, phenyl, benzyl or $-(CH_2)_nCOOH$, and n is a number of 1, 2 or 3.

7. (Currently Amended) The composition for forming anti-reflective coating according to ~~claim 3,~~ claim 1, wherein the triazine trione compound having a substituent of formula (2) as substituent on nitrogen atom, or the triazine trione oligomer compound or triazine trione polymer compound having a structure in which at least two triazine trione rings are linked through a linking group of formula (4) on the nitrogen atoms is produced from a triazine trione compound having at least two nitrogen atoms having a substituent of formula (13) on nitrogen atom and a phenyl compound or naphthalene compound of formula (14) having at least two substituents selected from carboxy and hydroxy which are identical or different from each other

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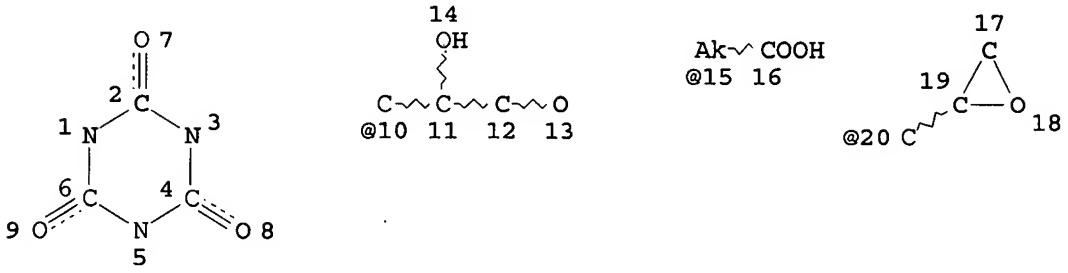

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DEFAULT ECLEVEL IS LIMITED

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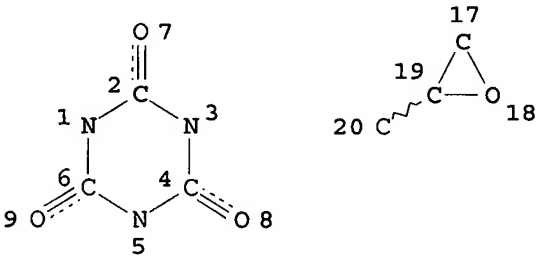


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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS  13

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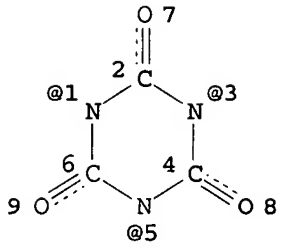

Ak~COOH
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VPA 15-1/3/5 U
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
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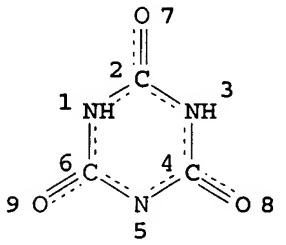
L29 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
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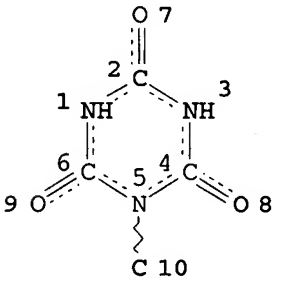

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 10

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L35 457 SEA FILE=REGISTRY SUB=L33 SSS FUL L31
L37 152 SEA FILE=HCAPLUS ABB=ON PLU=ON L24
L38 214 SEA FILE=HCAPLUS ABB=ON PLU=ON L35
L39 2081 SEA FILE=HCAPLUS ABB=ON PLU=ON L21
L40 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND L38 AND L39

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L40 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:333974 HCAPLUS
DOCUMENT NUMBER: 140:365660
TITLE: Composition for forming antireflection film for lithography
INVENTOR(S): Kishioka, Takahiro; Mizusawa, Ken-ichi; Enomoto, Tomoyuki; Sakamoto, Rikimaru; Nakayama, Keisuke; Kawamura, Yasuo
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004034148	A1	20040422	WO 2003-JP12875		20031008
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2003271123	A1	20040504	AU 2003-271123		20031008
EP 1560070	A1	20050803	EP 2003-751376		20031008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
CN 1723418	A	20060118	CN 2003-80105388		20031008
PRIORITY APPLN. INFO.:			JP 2002-295777	A	20021009
			JP 2003-126886	A	20030502
			WO 2003-JP12875	W	20031008

ED Entered STN: 23 Apr 2004
AB A composition for forming an antireflection film comprises a compound, an

oligomer or a polymer comprising a triazine-trione moiety having a hydroxyalkyl structure as a substitute on a nitrogen atom. The composition can provide an antireflection film which exhibits good absorptivity for a light having a wavelength suitable for use in the production of a semiconductor device, has high antireflection effect, and exhibits a dry etching rate greater than that of a photoresist layer.

IT **681440-09-5P 681440-10-8P 681440-11-9P 681440-12-0P 681440-14-2P 681440-16-4P 681440-19-7P**
(oligomeric; photolithog antireflective film compns. containing)

RN 681440-09-5 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 6-hydroxy-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

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CRN 16712-64-4
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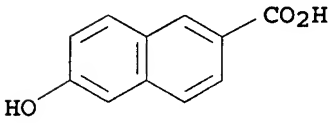
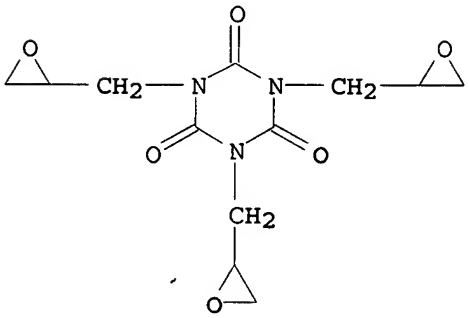


CM 2

CRN 2451-62-9
CMF C12 H15 N3 O6

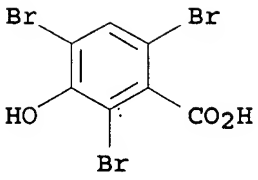


RN 681440-10-8 HCAPLUS

CN Benzoic acid, 2,4,6-tribromo-3-hydroxy-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

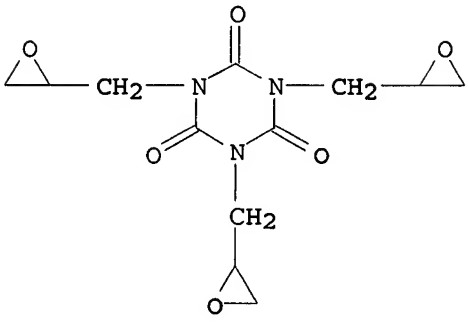
CM 1

CRN 14348-40-4
CMF C7 H3 Br3 O3



CM 2

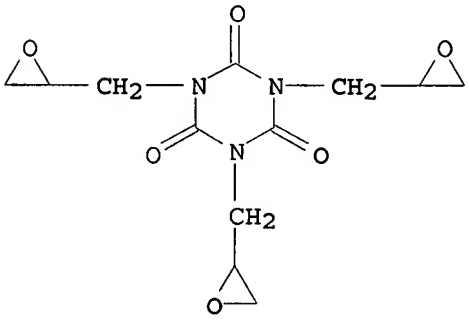
CRN 2451-62-9
CMF C12 H15 N3 O6



RN 681440-11-9 HCAPLUS
CN Benzoic acid, 2-hydroxy-3,5-diiodo-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

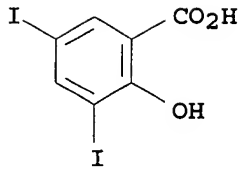
CM 1

CRN 2451-62-9
CMF C12 H15 N3 O6



CM 2

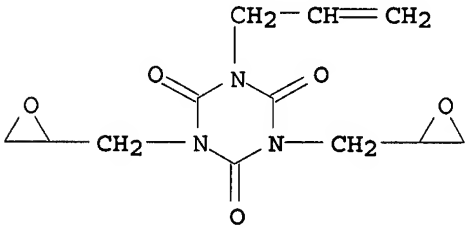
CRN 133-91-5
CMF C7 H4 I2 O3



RN 681440-12-0 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

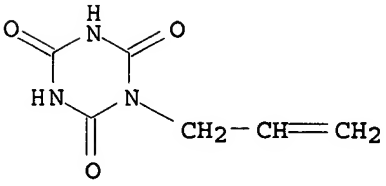
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

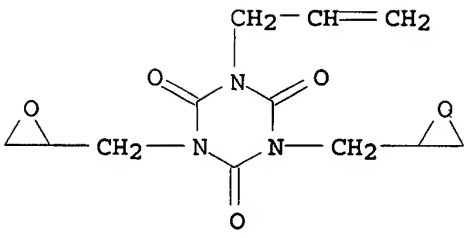
CRN 3030-60-2
CMF C6 H7 N3 O3



RN 681440-14-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-phenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

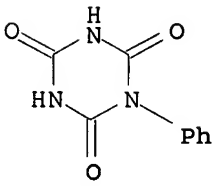
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

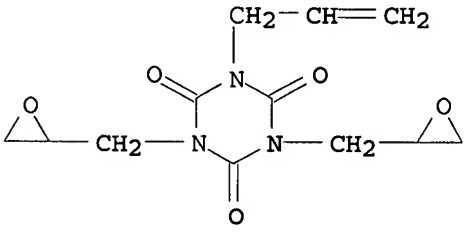
CRN 5725-46-2
CMF C9 H7 N3 O3



RN 681440-16-4 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-methyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

CRN 6726-47-2
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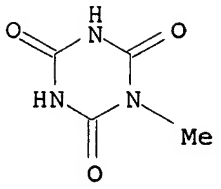

RN 681440-19-7 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-dibutanoic acid, dihydro-5-methyl-2,4,6-trioxo-, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 681440-18-6
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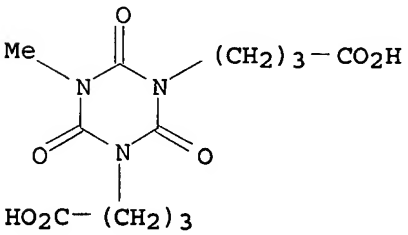

CM 2

CRN 69731-45-9
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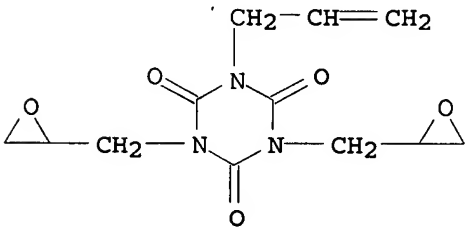

IT **681440-23-3P**
(photolithog antireflective film compns. containing)
RN 681440-23-3 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

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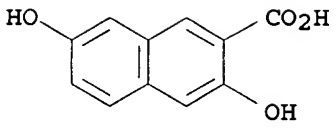

CM 2

CRN 2451-62-9
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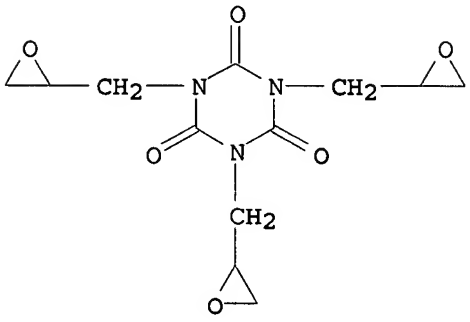
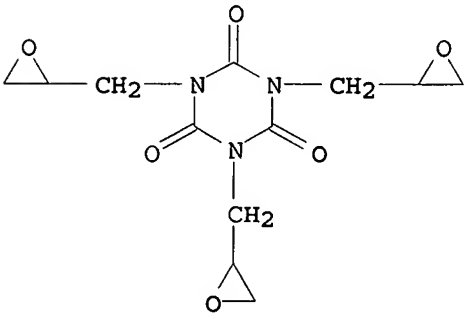
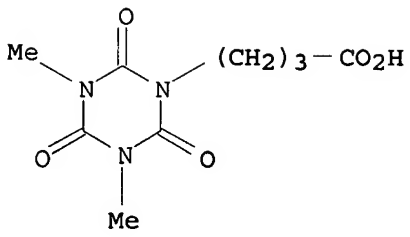


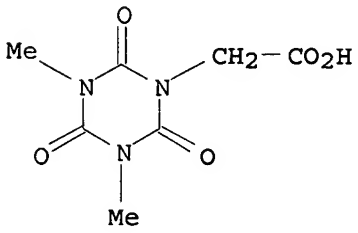
IT **2451-62-9**, Tris(2,3-epoxypropyl)isocyanurate
(reaction with carboxyalkyldimethylisocyanuric acids in preparation of antireflective coating composition component)
RN 2451-62-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



IT **681440-24-4 681440-25-5**
(reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of antireflective coating composition component)
RN 681440-24-4 HCAPLUS
CN 1,3,5-Triazine-1(2H)-butanoic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 681440-25-5 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT **681440-09-5P 681440-10-8P 681440-11-9P**
681440-12-0P 681440-13-1P **681440-14-2P**
681440-15-3P **681440-16-4P** 681440-17-5P
681440-19-7P 681440-20-0P
(oligomeric; photolithog antireflective film compns. containing)
IT 681440-21-1P 681440-22-2P **681440-23-3P**
(photolithog antireflective film compns. containing)
IT **2451-62-9**, Tris(2,3-epoxypropyl)isocyanurate
(reaction with carboxyalkyldimethylisocyanuric acids in preparation of antireflective coating composition component)
IT **681440-24-4 681440-25-5**
(reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of antireflective coating composition component)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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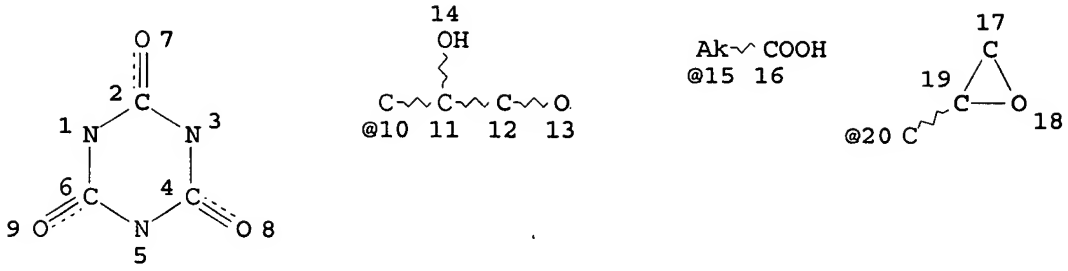

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VAR G1=10/15/20
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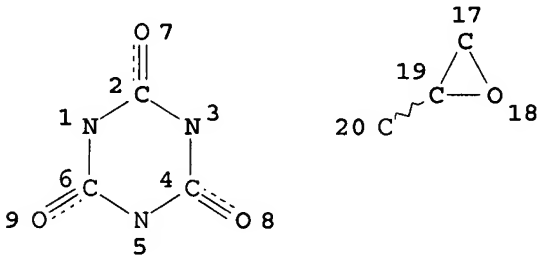

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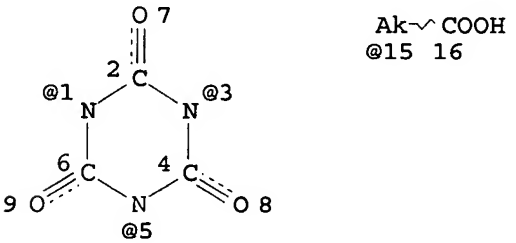

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NUMBER OF NODES IS 11

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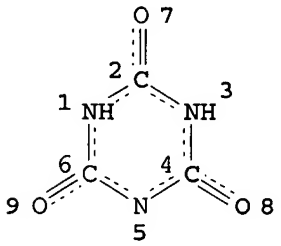

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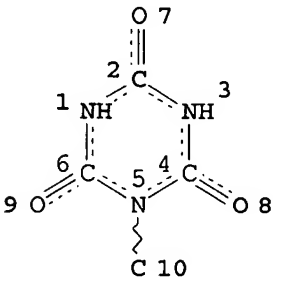

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GRAPH ATTRIBUTES:
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L37 152 SEA FILE=HCAPLUS ABB=ON PLU=ON L24
L38 214 SEA FILE=HCAPLUS ABB=ON PLU=ON L35
L39 2081 SEA FILE=HCAPLUS ABB=ON PLU=ON L21

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L41          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND L38
L42          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND L37
L43          22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L41 OR L42)

=> d l43 1-22 ibib ed abs hitstr hitind

L43  ANSWER 1 OF 22  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2006:680329  HCAPLUS
DOCUMENT NUMBER:          145:125295
TITLE:                    Glycidyl-containing triazines derivatives for
                          compounding with epoxy resins
INVENTOR(S):              Miyauchi, Yukio
PATENT ASSIGNEE(S):       Shikoku Chemicals Corp., Japan
SOURCE:                   Jpn. Kokai Tokkyo Koho, 7 pp.
                          CODEN: JKXXAF
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     JP 2006182834         A     20060713    JP 2004-375621          20041227
PRIORITY APPLN. INFO.:                       JP 2004-375621          20041227

OTHER SOURCE(S):          MARPAT 145:125295
ED   Entered STN:  14 Jul 2006
GI
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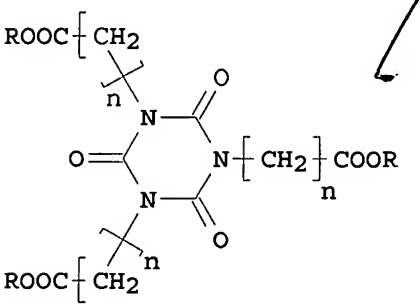


I

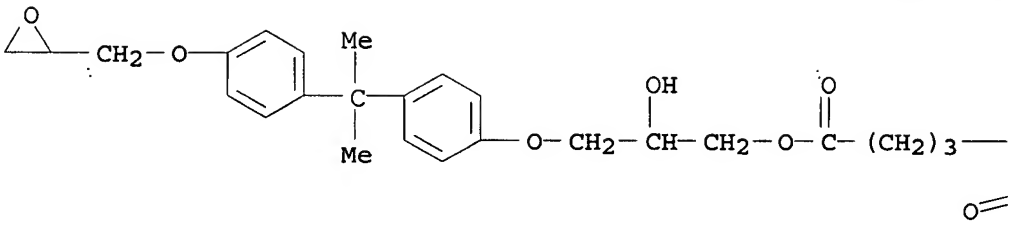
AB The invention relates to triazine derivs. I [R = CH2CHOHCH2OQCMe2Q(OCH2CHOHCH2OQCMe2Q)mOGly; Q = p-phenylene; m = 0-2; n = 1-3]. The triazine derivs. show good compatibility to epoxy resins and work as curing agents to provide epoxy resins with good transparency and heat and weather resistance. Thus, tris(3-carboxypropyl)isocyanurate was reacted with bisphenol A epoxy resin (Epikote 828) to give I (m = 0, n = 3).

IT **897387-55-2P**
(glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)

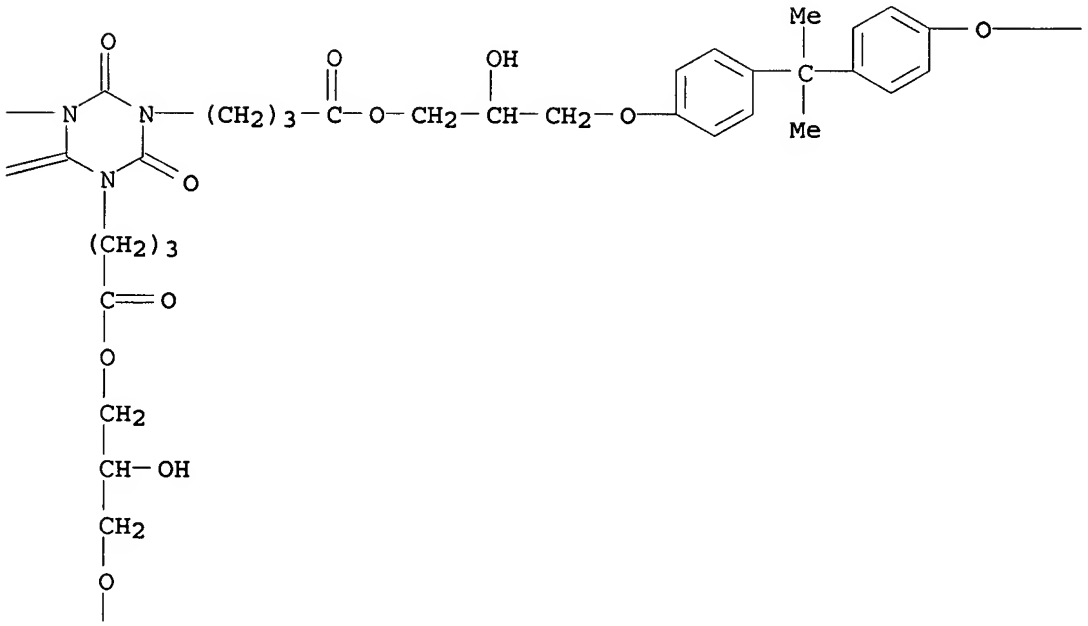
RN 897387-55-2 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tributanoic acid, 2,4,6-trioxo-, tris[2-hydroxy-3-[4-[1-methyl-1-[4-(oxiranylmethoxy)phenyl]ethyl]phenoxy]propyl] ester (9CI) (CA INDEX NAME)

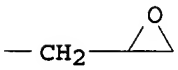
PAGE 1-A



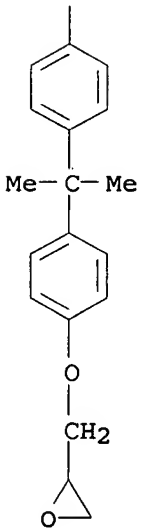
PAGE 1-B



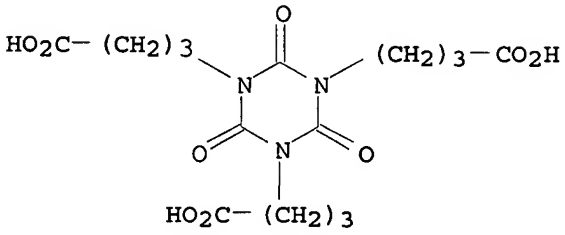
PAGE 1-C



PAGE 2-B



IT **319017-31-7**
(glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)
RN 319017-31-7 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tributanoic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)
IT **897387-55-2P**
(glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)
IT 25068-38-6, Epikote 828 **319017-31-7**
(glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)

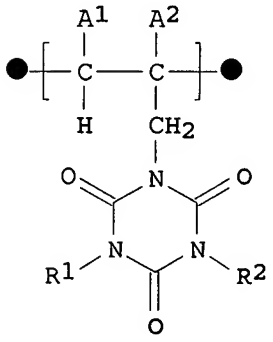
L43 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1153322 HCAPLUS
DOCUMENT NUMBER: 143:430027
TITLE: Antireflecting film for photoresist layer in photolithography
INVENTOR(S): Kishioka, Takahiro
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005300825	A	20051027	JP 2004-115391	20040409

PRIORITY APPLN. INFO.: JP 2004-115391 20040409

ED Entered STN: 28 Oct 2005
GI



I

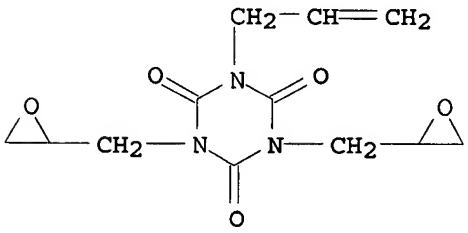
AB The title composition contains a polymer in a solvent, wherein the polymer has a repeating unit I(A1-2 = H, Me, ethyl; R1-2= H, C1-6 = alkyl, C3-6 = alkenyl, benzyl, etc.). The film generates little intermixing with a photoresist.

IT **311810-13-6DP**, crosslinked **868057-84-5DP**, crosslinked
(antireflecting film for photoresist layer in photolithog.)

RN 311810-13-6 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

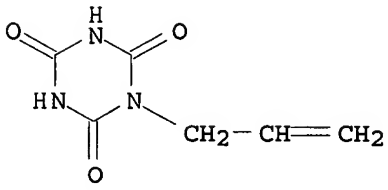
CRN 69731-45-9
CMF C12 H15 N3 O5



RN 868057-84-5 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3030-60-2
CMF C6 H7 N3 O3



IC ICM G03F007-11
ICS C08F026-06; C09D005-00; C09D139-04; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
IT 65-85-0DP, Benzoic acid, reaction product with allyl isocyanurate polymer **311810-13-6DP**, crosslinked **868057-84-5DP**, crosslinked 868057-86-7DP, crosslinked
(antireflecting film for photoresist layer in photolithog.)

L43 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1130913 HCAPLUS
DOCUMENT NUMBER: 143:413507
TITLE: Antireflection film for semiconductor containing condensation-type polymer
INVENTOR(S): Kishioka, Takahiro; Sakamoto, Rikimaru; Hiroi, Yoshiomi; Maruyama, Daisuke
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005098542	A1	20051020	WO 2005-JP6785	20050406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1757986	A1	20070228	EP 2005-728797	20050406
R: DE, FR, GB, IT, NL				
CN 1965268	A	20070516	CN 2005-80018731	20050406
PRIORITY APPLN. INFO.:			JP 2004-115385 A	20040409

WO 2005-JP6785 W 20050406

ED Entered STN: 21 Oct 2005

AB To provide an antireflection film that exhibits aa high light reflection preventing effect, being free from intermixing with photoresist, and that can be employed in a lithog. process using irradiation beam, such as those from ArF excimer laser and F2 excimer laser, and further to provide a composition for forming such an antireflection film. There is provided an antireflection film forming a composition characterized by containing a polymer having a pyrimidine trione structure, imidazolidinedione structure, imidazolidinetrione structure or triazinetrione structure and containing a solvent.

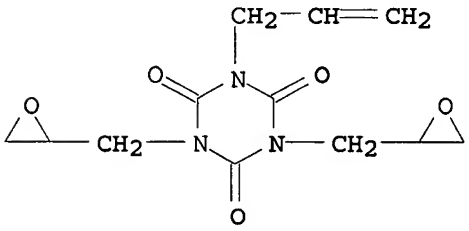
IT **867300-29-6P 867300-30-9P 867300-31-0P**
867300-34-3P 867300-36-5P 867300-39-8P
867300-40-1P 867300-41-2P 867300-42-3P
867300-43-4P 867330-22-1P
(preparation of antireflection films for semiconductor containing condensation-type polymer)

RN 867300-29-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 5,5-diethyl-2,4,6(1H,3H,5H)-pyrimidinetrione (9CI) (CA INDEX NAME)

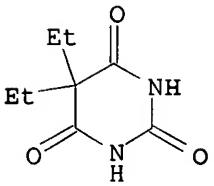
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

CRN 57-44-3
CMF C8 H12 N2 O3

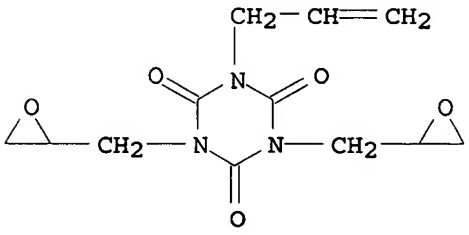


RN 867300-30-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 5-ethyl-5-phenyl-2,4,6(1H,3H,5H)-pyrimidinetrione (9CI) (CA INDEX NAME)

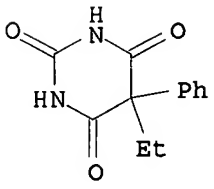
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

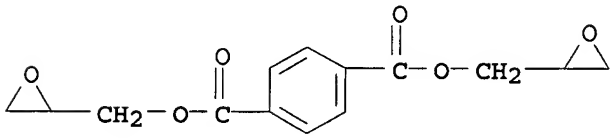
CRN 50-06-6
CMF C12 H12 N2 O3



RN 867300-31-0 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

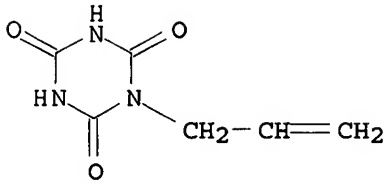
CM 1

CRN 7195-44-0
CMF C14 H14 O6



CM 2

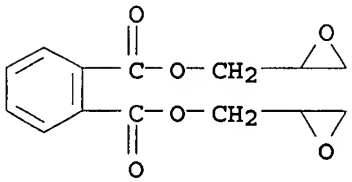
CRN 3030-60-2
CMF C6 H7 N3 O3



RN 867300-34-3 HCAPLUS
CN 1,2-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

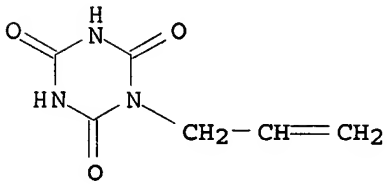
CM 1

CRN 7195-45-1
CMF C14 H14 O6



CM 2

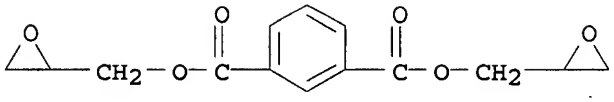
CRN 3030-60-2
CMF C6 H7 N3 O3



RN 867300-36-5 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

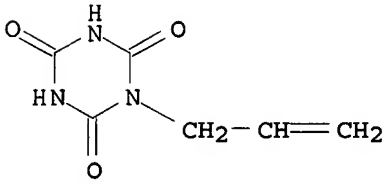
CM 1

CRN 7195-43-9
CMF C14 H14 O6



CM 2

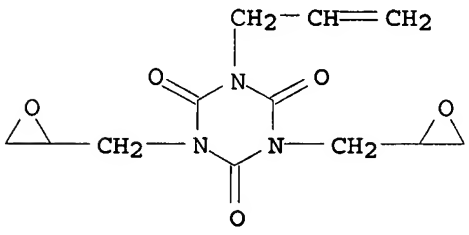
CRN 3030-60-2
CMF C6 H7 N3 O3



RN 867300-39-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 5,5-diethyl-2,4,6(1H,3H,5H)-pyrimidinetrione and 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

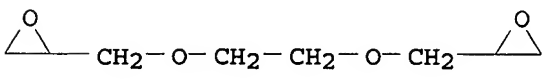
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



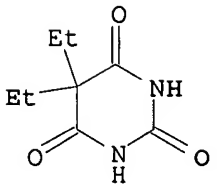
CM 2

CRN 2224-15-9
CMF C8 H14 O4



CM 3

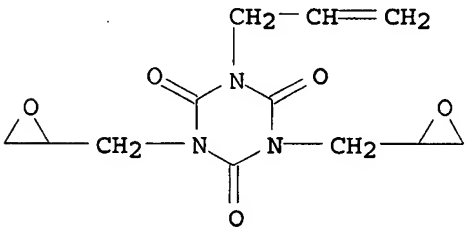
CRN 57-44-3
CMF C8 H12 N2 O3



RN 867300-40-1 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

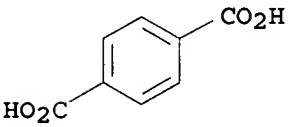
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

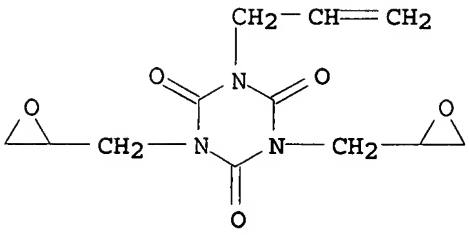
CRN 100-21-0
CMF C8 H6 O4



RN 867300-41-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione and 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

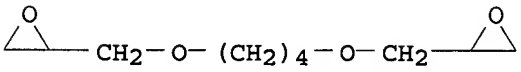
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



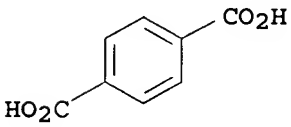
CM 2

CRN 2425-79-8
CMF C10 H18 O4



CM 3

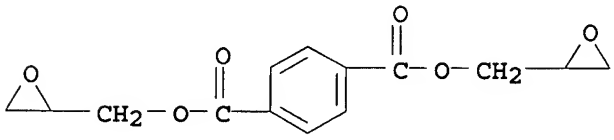
CRN 100-21-0
CMF C8 H6 O4



RN 867300-42-3 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] and 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

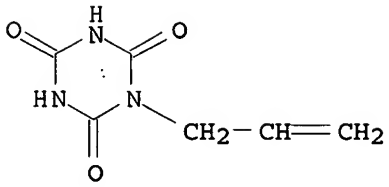
CM 1

CRN 7195-44-0
CMF C14 H14 O6



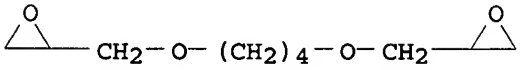
CM 2

CRN 3030-60-2
CMF C6 H7 N3 O3



CM 3

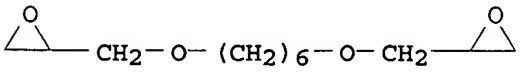
CRN 2425-79-8
CMF C10 H18 O4



RN 867300-43-4 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 2,2'-[1,6-hexanediylbis(oxymethylene)]bis[oxirane] and 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

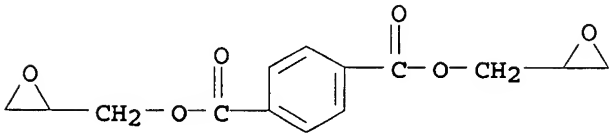
CM 1

CRN 16096-31-4
CMF C12 H22 O4



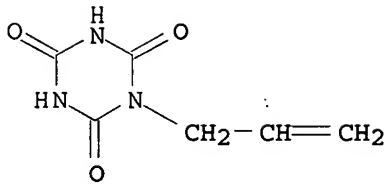
CM 2

CRN 7195-44-0
CMF C14 H14 O6



CM 3

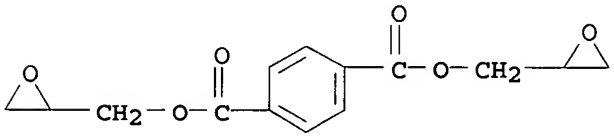
CRN 3030-60-2
CMF C6 H7 N3 O3



RN 867330-22-1 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with bis(oxiranylmethyl) 1,2-cyclohexanedicarboxylate and 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

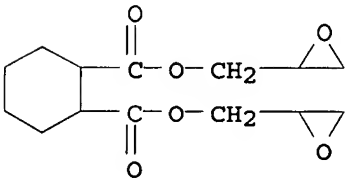
CM 1

CRN 7195-44-0
CMF C14 H14 O6



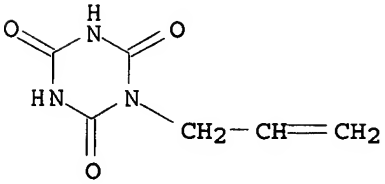
CM 2

CRN 5493-45-8
CMF C14 H20 O6



CM 3

CRN 3030-60-2
CMF C6 H7 N3 O3



IC ICM G03F007-11
ICS C08L079-04; C09D163-00; C09D179-04; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73, 76
IT **867300-29-6P 867300-30-9P 867300-31-0P**
867300-32-1P 867300-33-2P **867300-34-3P** 867300-35-4P
867300-36-5P 867300-37-6P 867300-38-7P
867300-39-8P 867300-40-1P 867300-41-2P
867300-42-3P 867300-43-4P 867330-22-1P
867330-23-2P 867330-24-3P 867330-25-4P
(preparation of antireflection films for semiconductor containing condensation-type polymer)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:872885 HCAPLUS
DOCUMENT NUMBER: 141:372751
TITLE: Composition for formation of underlayer film for lithography containing epoxy compound and carboxylic acid compound
INVENTOR(S): Kishioka, Takahiro
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004090640	A1	20041021	WO 2004-JP4764	20040401
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1617289	A1	20060118	EP 2004-725145	20040401
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1768306	A	20060503	CN 2004-80009217	20040401
US 2006234156	A1	20061019	US 2005-551130	20050929
PRIORITY APPLN. INFO.:			JP 2003-99228	A 20030402
			WO 2004-JP4764	W 20040401

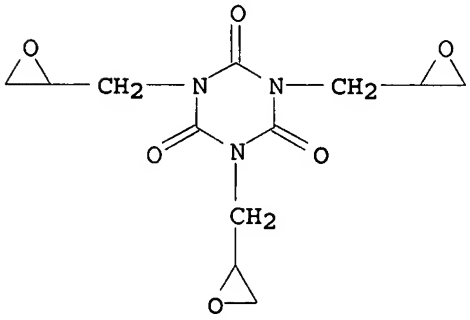
ED Entered STN: 21 Oct 2004
AB A composition for formation of underlayer film for lithog. that is used in

the lithog. process for producing semiconductor devices; and an underlayer film exhibiting a dry etching rate greater than in the use of photoresists. In particular, a composition for formation of underlayer film, capable of forming an underlayer film without the need to use a crosslinking reaction catalyzed by a strong acid, which composition comprises a component having epoxy group (polymeric compound or compound) and a component having phenolic hydroxyl group, carboxyl group, protected carboxyl group or acid anhydride structure (polymeric compound or compound).

IT **2451-62-9**, Tris(2,3-epoxypropyl)isocyanurate **2904-41-8**, Tris(2-carboxyethyl)isocyanurate
(composition for formation of underlayer film for lithog. containing epoxy compound and carboxylic acid compound)

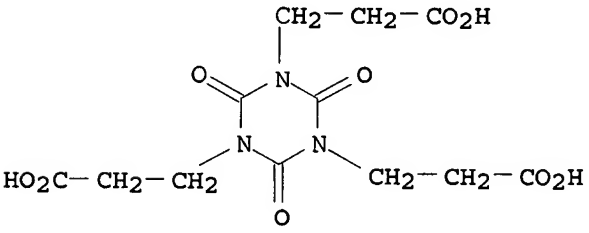
RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 2904-41-8 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



IC ICM G03F007-11
ICS C08G059-40; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

IT **2451-62-9**, Tris(2,3-epoxypropyl)isocyanurate **2904-41-8**, Tris(2-carboxyethyl)isocyanurate 9003-01-4, Poly(acrylic acid)
(composition for formation of underlayer film for lithog. containing epoxy compound and carboxylic acid compound)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:333974 HCAPLUS
DOCUMENT NUMBER: 140:365660
TITLE: Composition for forming antireflection film for lithography
INVENTOR(S): Kishioka, Takahiro; Mizusawa, Ken-ichi; Enomoto, Tomoyuki; Sakamoto, Rikimaru; Nakayama, Keisuke; Kawamura, Yasuo
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034148	A1	20040422	WO 2003-JP12875	20031008
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003271123	A1	~~20040504~~	AU 2003-271123	20031008
EP 1560070	A1	~~20050803~~	EP 2003-751376	20031008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1723418	A	~~20060~~118	CN 2003-80105388	20031008
PRIORITY APPLN. INFO.:			JP 2002-295777 A	20021009
			JP 2003-126886 A	20030502
			WO 2003-JP12875 W	20031008

ED Entered STN: 23 Apr 2004

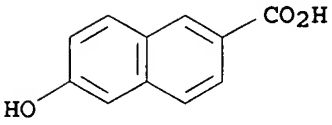
AB A composition for forming an antireflection film comprises a compound, an oligomer or a polymer comprising a triazine-trione moiety having a hydroxyalkyl structure as a substitute on a nitrogen atom. The composition can provide an antireflection film which exhibits good absorptivity for a light having a wavelength suitable for use in the production of a semiconductor device, has high antireflection effect, and exhibits a dry etching rate greater than that of a photoresist layer.

IT **681440-09-5P 681440-10-8P 681440-11-9P 681440-12-0P 681440-14-2P 681440-16-4P 681440-19-7P**
(oligomeric; photolithog antireflective film compns. containing)

RN 681440-09-5 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 6-hydroxy-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

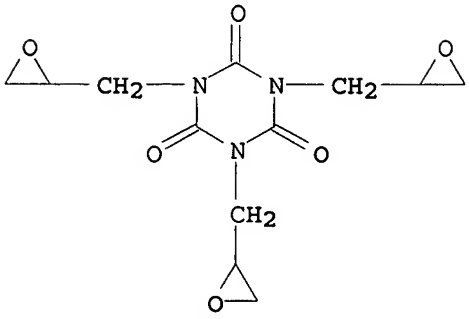
CM 1

CRN 16712-64-4
CMF C11 H8 O3



CM 2

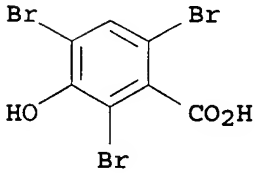
CRN 2451-62-9
CMF C12 H15 N3 O6



RN 681440-10-8 HCAPLUS
CN Benzoic acid, 2,4,6-tribromo-3-hydroxy-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

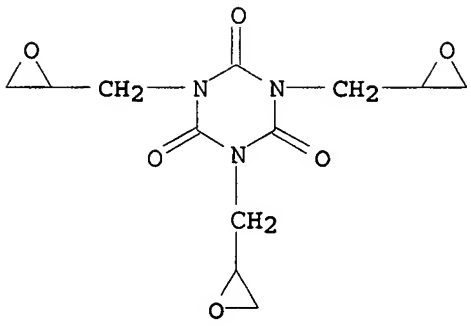
CM 1

CRN 14348-40-4
CMF C7 H3 Br3 O3



CM 2

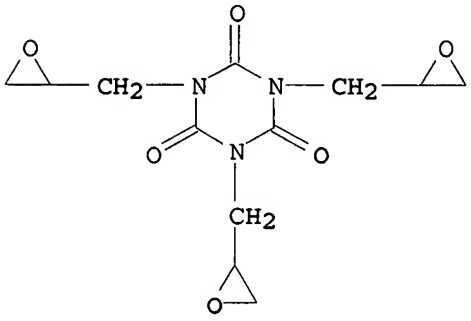
CRN 2451-62-9
CMF C12 H15 N3 O6



RN 681440-11-9 HCAPLUS
CN Benzoic acid, 2-hydroxy-3,5-diiodo-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

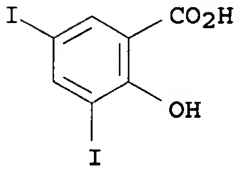
CM 1

CRN 2451-62-9
CMF C12 H15 N3 O6



CM 2

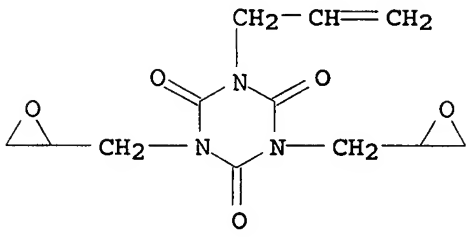
CRN 133-91-5
CMF C7 H4 I2 O3



RN 681440-12-0 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

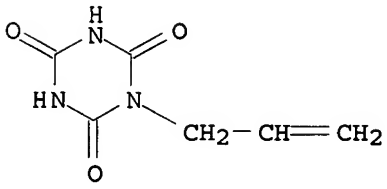
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

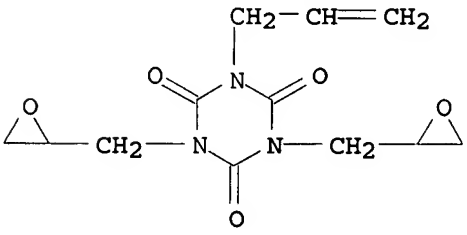
CRN 3030-60-2
CMF C6 H7 N3 O3



RN 681440-14-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-phenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

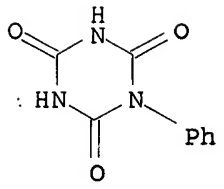
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

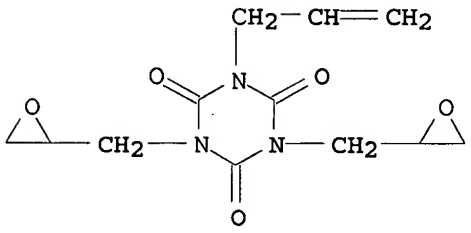
CRN 5725-46-2
CMF C9 H7 N3 O3



RN 681440-16-4 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-methyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

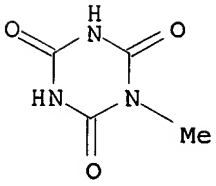
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

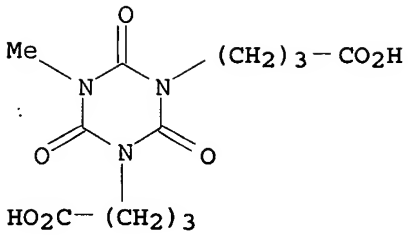
CRN 6726-47-2
CMF C4 H5 N3 O3



RN 681440-19-7 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-dibutanoic acid, dihydro-5-methyl-2,4,6-trioxo-, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

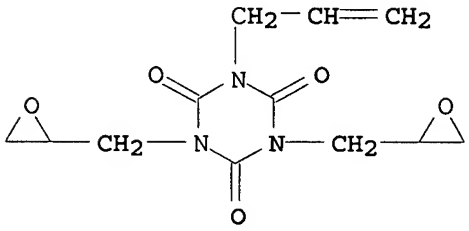
CM 1

CRN 681440-18-6
CMF C12 H17 N3 O7



CM 2

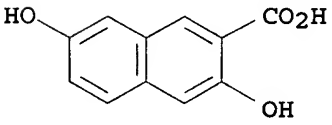
CRN 69731-45-9
CMF C12 H15 N3 O5



IT **681440-23-3P**
(photolithog antireflective film compns. containing)
RN 681440-23-3 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

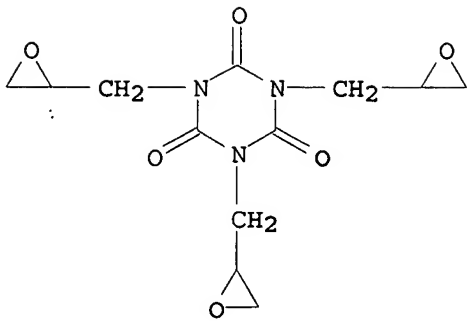
CM 1

CRN 83511-07-3
CMF C11 H8 O4

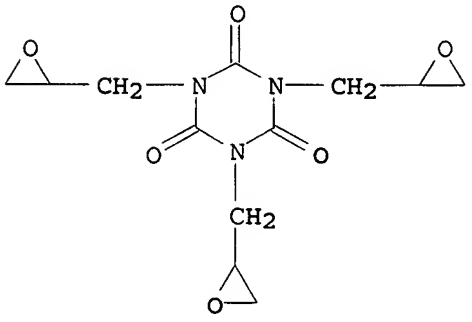


CM 2

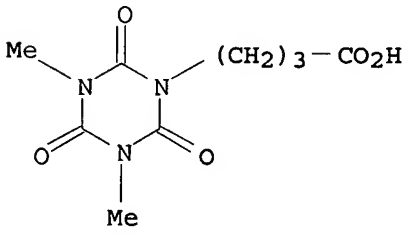
CRN 2451-62-9
CMF C12 H15 N3 O6



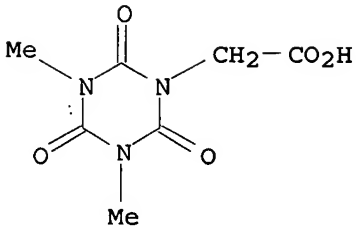
IT **2451-62-9**, Tris(2,3-epoxypropyl)isocyanurate
(reaction with carboxyalkyldimethylisocyanuric acids in preparation of antireflective coating composition component)
RN 2451-62-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



IT **681440-24-4 681440-25-5**
(reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of antireflective coating composition component)
RN 681440-24-4 HCAPLUS
CN 1,3,5-Triazine-1(2H)-butanoic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 681440-25-5 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)

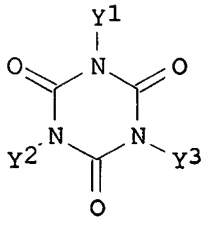


IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT **681440-09-5P 681440-10-8P 681440-11-9P**
681440-12-0P 681440-13-1P **681440-14-2P**
681440-15-3P **681440-16-4P** 681440-17-5P
681440-19-7P 681440-20-0P
(oligomeric; photolithog antireflective film compns. containing)
IT 681440-21-1P 681440-22-2P **681440-23-3P**
(photolithog antireflective film compns. containing)
IT **2451-62-9**, Tris(2,3-epoxypropyl)isocyanurate
(reaction with carboxyalkyldimethylisocyanuric acids in preparation of antireflective coating composition component)
IT **681440-24-4 681440-25-5**
(reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of antireflective coating composition component)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:466084 HCAPLUS
DOCUMENT NUMBER: 137:47922
TITLE: Epoxy resins, their manufacture, epoxy resin compositions, and cured articles
INVENTOR(S): Kaji, Masashi; Ogami, Koichiro
PATENT ASSIGNEE(S): Nippon Steel Chemical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048235	A1	20020620	WO 2001-JP10798	20011210
W: CN, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2003176331	A	20030624	JP 2002-212673	20020722
US 2004024167	A1	20040205	US 2003-433365	20030604
US 6903180	B2	20050607		
PRIORITY APPLN. INFO.:			JP 2000-376351 A	20001211
			WO 2001-JP10798 A	20011210

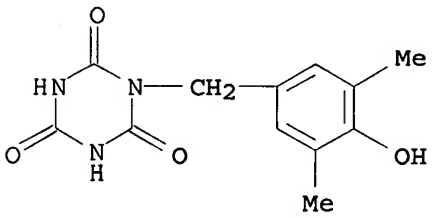
ED Entered STN: 21 Jun 2002
GI



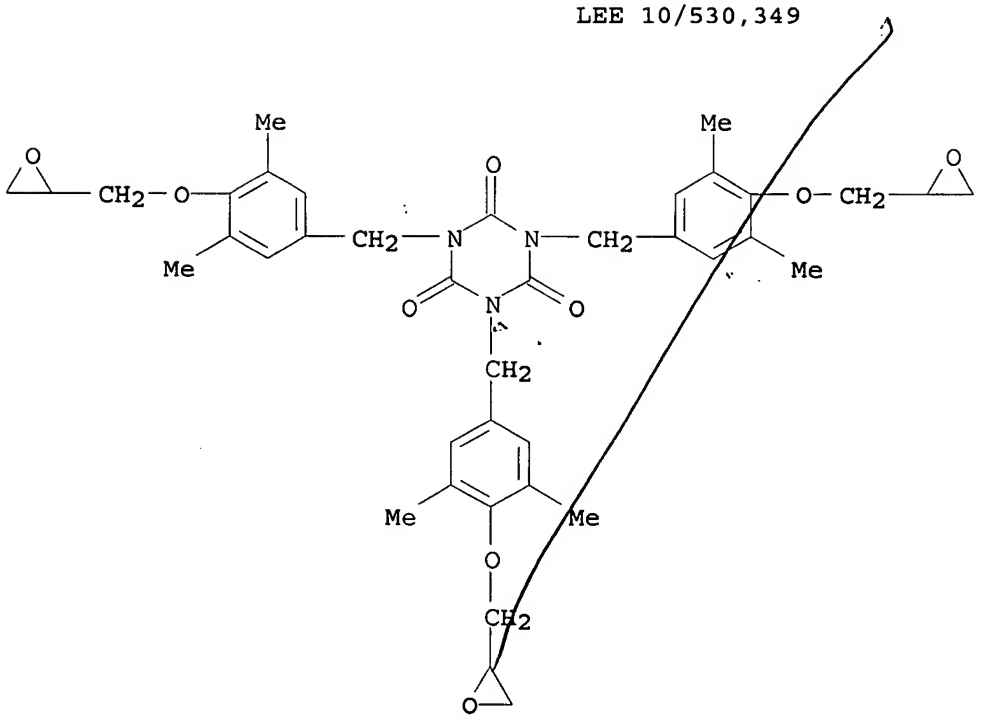
I

AB The invention relates to novel epoxy resins, and epoxy resin compns. or cured articles produced by using the resins. The cured articles are excellent in flame retardance, adhesion, water vapor resistance, and heat resistance, and suitably usable in lamination, molding, casting, adhesion, or the like. The epoxy resins are represented by the general formula I (Y1 = glycidyloxyarylmethyl group; Y2, Y3 = glycidyl, glycidyloxyarylmethyl group).

IT **436147-29-4P**
(preparation of isocyanurate ring-containing epoxy resins)
RN 436147-29-4 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[(4-hydroxy-3,5-dimethylphenyl)methyl]- (9CI) (CA INDEX NAME)



IT **436147-33-0P**
(preparation of isocyanurate ring-containing epoxy resins)
RN 436147-33-0 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[[3,5-dimethyl-4-(oxiranylmethoxy)phenyl]methyl]- (9CI) (CA INDEX NAME)



IC ICM C08G059-06
ICS C08G059-32; C08G059-62; C07D405-14
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 38
IT **436147-29-4P** 436147-30-7P
(preparation of isocyanurate ring-containing epoxy resins)
IT **436147-33-0P**
(preparation of isocyanurate ring-containing epoxy resins)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:865395 HCAPLUS
DOCUMENT NUMBER: 134:30015
TITLE: Thermosetting epoxy resin compositions with good mechanical and electric properties and processability
INVENTOR(S): Miyauchi, Yukio; Kano, Naoki
PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000344867	A	20001212	JP 1999-154388	19990601
JP 3477111	B2	20031210		
PRIORITY APPLN. INFO.:			JP 1999-154388	19990601

ED Entered STN: 12 Dec 2000
AB The compns., useful for adhesives, coatings, elec. insulators,

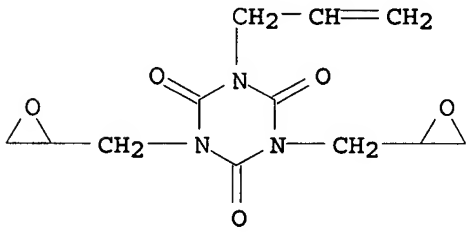
sealants, laminated boards, etc., contain monoallyl diglycidyl isocyanurates and epoxy resin hardeners. Thus, a composition comprising monoallyl diglycidyl isocyanurate and 2E4MZ was cured to give a test piece showing flexural modulus 42,740 kg/cm2, bending strength 1028 kg/cm2, Tg 173°, and volume resistivity 0.92 + 1016 Ω-cm.

IT **311810-13-6P 311810-14-7P 311810-15-8P 311810-16-9P**
(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)

RN 311810-13-6 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

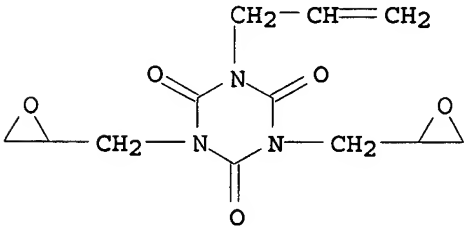
CRN 69731-45-9
CMF C12 H15 N3 O5



RN 311810-14-7 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

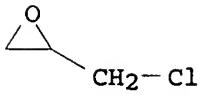
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



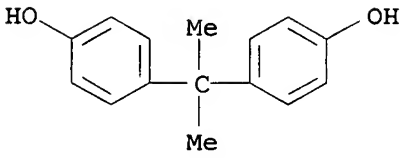
CM 2

CRN 106-89-8
CMF C3 H5 Cl O



CM 3

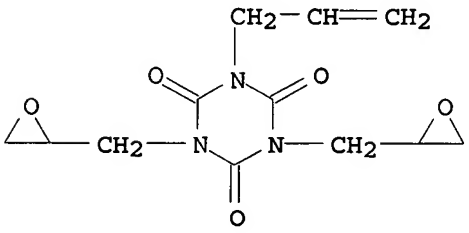
CRN 80-05-7
CMF C15 H16 O2



RN 311810-15-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with hexahydromethyl-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

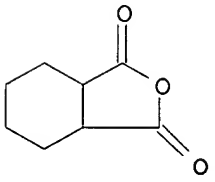
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

CRN 25550-51-0
CMF C9 H12 O3
CCI IDS

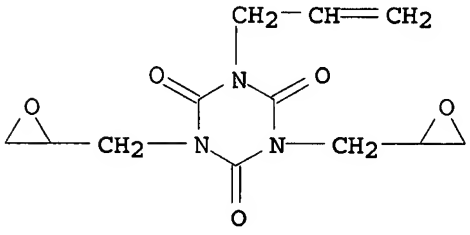


D1—Me

RN 311810-16-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with (chloromethyl)oxirane, hexahydromethyl-1,3-isobenzofurandione and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

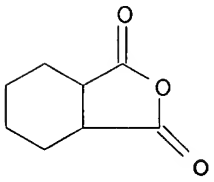
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

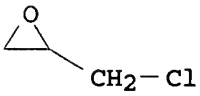
CRN 25550-51-0
CMF C9 H12 O3
CCI IDS



D1—Me

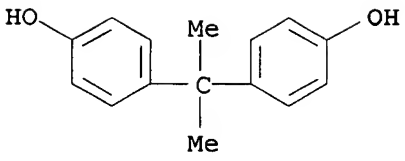
CM 3

CRN 106-89-8
CMF C3 H5 Cl O

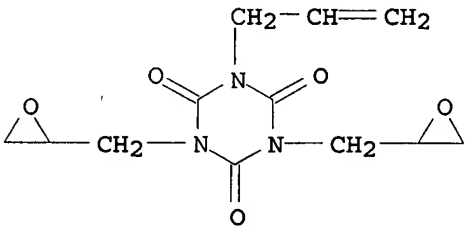


CM 4

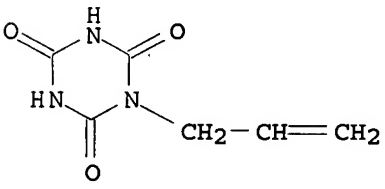
CRN 80-05-7
CMF C15 H16 O2



IT **69731-45-9P**
(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)
RN 69731-45-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propen-1-yl)- (CA INDEX NAME)



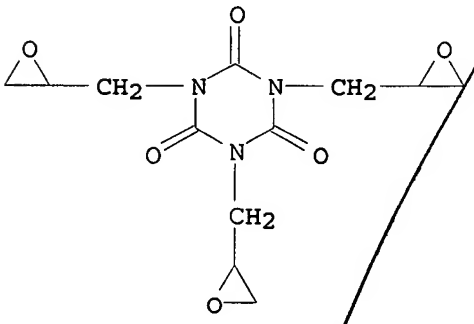
IT **3030-60-2**, Allyl isocyanurate
(thermosetting epoxy resin compns. with good mech. and elec. properties and processability)
RN 3030-60-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)- (9CI) (CA INDEX NAME)



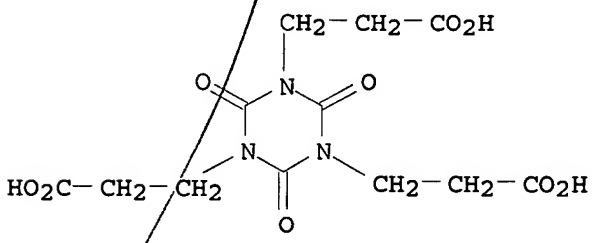
IC ICM C08G059-38
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 42, 76
IT **311810-13-6P 311810-14-7P 311810-15-8P 311810-16-9P**
(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)
IT **69731-45-9P**
(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)
IT 106-89-8, Epichlorohydrin, reactions **3030-60-2**, Allyl isocyanurate
(thermosetting epoxy resin compns. with good mech. and elec. properties and processability)

L43 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:151741 HCAPLUS
DOCUMENT NUMBER: 133:44912
TITLE: Tris(2-carboxyethyl)isocyanurate (CIC Acid) as crosslinking agent in coating
AUTHOR(S): Sakamoto, Yukihiro; Iwasaki, Yoshiya; Nakagi, Junji
CORPORATE SOURCE: Process Dev. Team, Shikoku Chemicals Corp., Japan
SOURCE: Toso to Toryo (2000), 602, 31-34
CODEN: TOTTAJ; ISSN: 0372-0527
PUBLISHER: Toryo Shuppansha
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
ED Entered STN: 07 Mar 2000
AB A review with 5 refs. on the properties of 2 chemical compds. as crosslinking agents for coatings; one is mentioned in the title and the other bis(2-carboxy Et)isocyanurate (their trade names are CIC Acid and Bis-CIC Acid resp.). Film properties of solvent-soluble coating containing triglycidyl isocyanurate as a base resin with CIC Acid and also of polyepoxide powder coating with a mixture of CIC Acid and dodecanedioic acid are described. CIC Acid derivs. having lower m.ps. are mentioned.
IT **2451-62-9D**, Triglycidyl isocyanurate, polymers
(triscarboxyethyl isocyanurate as crosslinking agent in coatings)
RN 2451-62-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



IT **2904-41-8**, Tris(2-carboxy ethyl)isocyanurate
(triscarboxyethyl isocyanurate as crosslinking agent in coatings)
RN 2904-41-8 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



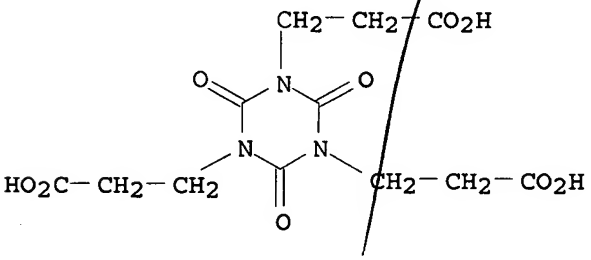
CC 42-0 (Coatings, Inks, and Related Products)
IT **2451-62-9D**, Triglycidyl isocyanurate, polymers

(triscarboxyethyl isocyanurate as crosslinking agent in coatings)
IT **2904-41-8**, Tris(2-carboxy ethyl)isocyanurate
(triscarboxyethyl isocyanurate as crosslinking agent in coatings)

L43 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:681479 HCAPLUS
DOCUMENT NUMBER: 131:300634
TITLE: Fire-resistant epoxy coating compositions
INVENTOR(S): Sakamoto, Yukihiro; Hasebe, Akihisa; Nakagi, Junji
PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11293189	A	19991026	JP 1998-101617	19980414
PRIORITY APPLN. INFO.:			JP 1998-101617	19980414

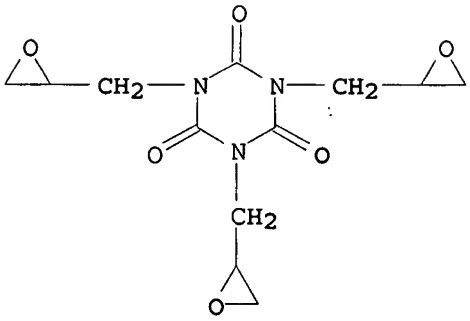
ED Entered STN: 27 Oct 1999
AB Title compns., with good curability and providing colorless and transparent coatings with good adhesion to metal substrate, comprise an epoxy resin having >2 epoxy groups, 1,3,5-tris(2-carboxyethyl)isocyanurate, 1-50 weight% (based on the total weight of the epoxy resin and the isocyanurate) of non-halogen phosphoric acid esters, and 10-500 weight% (based on the total weight of rest of the components) an organic solvent with solubility parameter of 8.0-13.0. The equivalent ratio of the epoxy group in the epoxy resin to the carboxy group in the isocyanurate is in the range of 0.5-4.0.
IT **2904-41-8**, 1,3,5-Tris(2-carboxyethyl)isocyanurate
(fire-resistant epoxy coating compns.)
RN 2904-41-8 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



IT **28825-96-9**, TEPIC S
(fire-resistant epoxy coating compns.)
RN 28825-96-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-, homopolymer (CA INDEX NAME)

CM 1

CRN 2451-62-9
CMF C12 H15 N3 O6

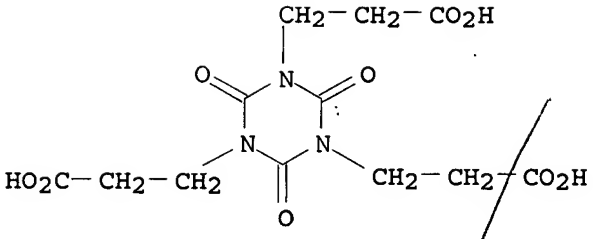


IC ICM C09D163-06
ICS C08G059-42; C07D251-34
CC 42-9 (Coatings, Inks, and Related Products)
IT 512-56-1, Trimethyl phosphate **2904-41-8**,
1,3,5-Tris(2-carboxyethyl)isocyanurate
(fire-resistant epoxy coating compns.)
IT **28825-96-9**, TEPIC S
(fire-resistant epoxy coating compns.)

L43 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:680219 HCAPLUS
DOCUMENT NUMBER: 131:300633
TITLE: Epoxy resin coating compositions with good curability at relatively low temperature and adhesion to metal surface
INVENTOR(S): Sakamoto, Yukihiro; Hasebe, Akihisa; Nakaki, Junji
PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11293187	A	19991026	JP 1998-100922	19980413
PRIORITY APPLN. INFO.:			JP 1998-100922	19980413

ED Entered STN: 26 Oct 1999
AB The compns. giving cured coat films with good transparency, comprise (A) epoxy resins bearing ≥2 epoxy groups, (B) 1,3,5-tris(2-carboxyethyl) isocyanurate (I) as curing agent, and organic solvents having solubility parameter 8.0-13.0 at the epoxy group/COOH (of I) equivalent ratio of 0.5-4.0:1 and solvent content 10-500% based on A+B. Thus, a composition of TEPIC-S (isocyanurate-type epoxy resin) 100, I 50, and DMF 200 parts showed gel time 40 s and pot life 4 days.
IT **2904-41-8**, 1,3,5-Tris(2-carboxyethyl) isocyanurate
(curing agents; epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)
RN 2904-41-8 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



IT **28825-96-9**, TEPIC-S
(epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)
RN 28825-96-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-, homopolymer (CA INDEX NAME)

CM 1

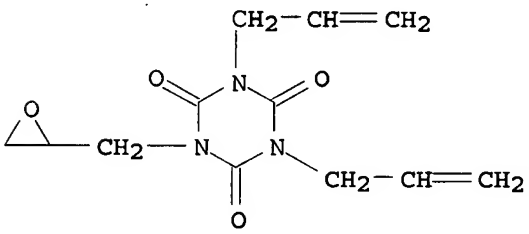
CRN 2451-62-9
CMF C12 H15 N3 O6

IC ICM C09D163-00
CC 42-9 (Coatings, Inks, and Related Products)
IT **2904-41-8**, 1,3,5-Tris(2-carboxyethyl) isocyanurate
(curing agents; epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)
IT **28825-96-9**, TEPIC-S
(epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)

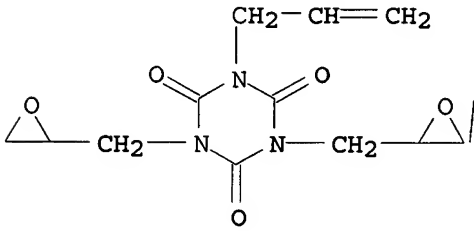
L43 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:768081 HCAPLUS
DOCUMENT NUMBER: 130:38406
TITLE: Preparation of substituted isocyanurates
INVENTOR(S): Kato, Yuichi; Takayama, Yoshihiro; Kameyama, Akinori
PATENT ASSIGNEE(S): Nippon Kasei Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10316665	A	19981202	JP 1997-137703	19970513
PRIORITY APPLN. INFO.:			JP 1997-137703	19970513

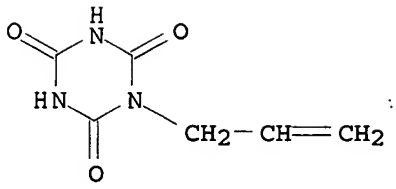
OTHER SOURCE(S): CASREACT 130:38406
ED Entered STN: 08 Dec 1998
AB Glycidyl allyl isocyanurates, useful as curing agents for polymers (no data), are prepared by reaction of monoallyl isocyanurates or diallyl isocyanurates with 4-18 mol equivalent of epichlorohydrin in the presence of 0.005-0.15 mol equivalent of phase-transfer catalysts and 0.5-5 mol equivalent of H2O and epoxidn. of 3-chloro-2-hydroxypropyl group-containing isocyanurates. Epichlorohydrin (499.5 g) was added with 94.0 g diallyl isocyanurate in the presence of 40.5 g H2O and 4.5 g Me4NBr at 88-119° for 1.5 h and epoxidized with NaOH at ≤40° for 1 h to give 96.3% monoglycidyl diallyl isocyanurate.
IT **20395-16-8P 69731-45-9P**
(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)
RN 20395-16-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



RN 69731-45-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propen-1-yl)- (CA INDEX NAME)



IT **3030-60-2**
(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)
RN 3030-60-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)- (9CI) (CA INDEX NAME)

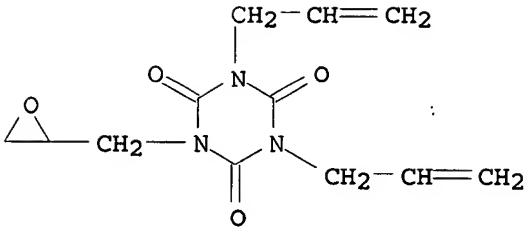


IC ICM C07D251-34
ICS C07D251-34
CC 28-18 (Heterocyclic Compounds (More Than One Hetero Atom))
IT **20395-16-8P 69731-45-9P**
(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)
IT **3030-60-2** 6294-79-7, Diallyl isocyanurate
(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)

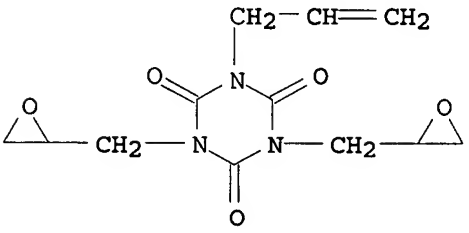
L43 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:758661 HCAPLUS
DOCUMENT NUMBER: 130:52860
TITLE: Fluorine-containing graft polymers with good adhesion and their manufacture
INVENTOR(S): Kanno, Fukuo; Sato, Takashi; Yokota, Masataka; Kato, Yuichi
PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan; Nippon Kasei Chemical Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310615	A	19981124	JP 1997-137457	19970513
PRIORITY APPLN. INFO.:			JP 1997-137457	19970513

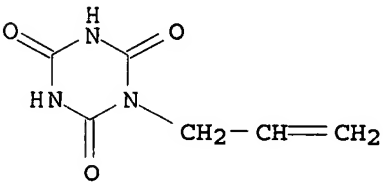
ED Entered STN: 03 Dec 1998
AB Title polymers are obtained by grafting allyl glycidyl isocyanurates onto F-containing polymers containing H bonded with C of the main chain. The polymers are manufactured by melt-blending the F-containing polymers, the isocyanurates, and radical generators at the temperature where radicals are generated. Thus, Aflon COP LM 740 (ethylene-tetrafluoroethylene copolymer), monoglycidyl diallyl isocyanurate (prepared from epichlorohydrin and diallyl isocyanurate), and dicumyl peroxide were melt-blended, extruded, and pelletized to give graft copolymer pellets showing melt index 4 g/10 min. Then, the pellets were extruded to give film showing wetting index 34 dyne/cm and adhesion strength to flexible poly(vinyl chloride) sheet 1.5 kg/cm.
IT **20395-16-8P 69731-45-9P**
(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)
RN 20395-16-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



RN 69731-45-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propen-1-yl)- (CA INDEX NAME)



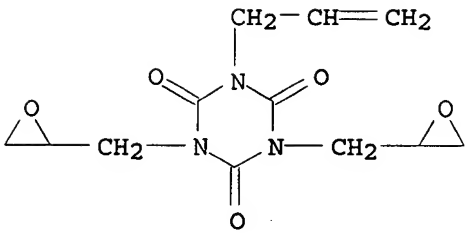
IT **3030-60-2**, Allyl isocyanurate
(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)
RN 3030-60-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)- (9CI) (CA INDEX NAME)



IT **216859-14-2P 217456-60-5P**
(preparation of F-containing polymers grafted with allyl glycidyl isocyanurates)
RN 216859-14-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with ethene and tetrafluoroethene, graft (9CI) (CA INDEX NAME)

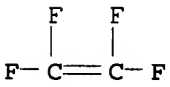
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

CRN 116-14-3
CMF C2 F4



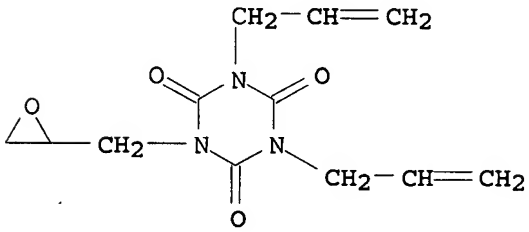
CM 3

CRN 74-85-1
CMF C2 H4

RN 217456-60-5 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)-3,5-di-2-propenyl-, polymer with ethene and tetrafluoroethene, graft (9CI) (CA INDEX NAME)

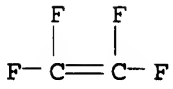
CM 1

CRN 20395-16-8
CMF C12 H15 N3 O4



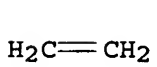
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

CRN 74-85-1
CMF C2 H4

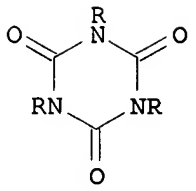


IC ICM C08F259-08
CC 35-8 (Chemistry of Synthetic High Polymers)
IT **20395-16-8P 69731-45-9P**
(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)
IT 106-89-8, Epichlorohydrin, reactions **3030-60-2**, Allyl isocyanurate 6294-79-7, Diallyl isocyanurate
(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)
IT **216859-14-2P 217456-60-5P**
(preparation of F-containing polymers grafted with allyl glycidyl isocyanurates)

L43 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:600079 HCAPLUS
DOCUMENT NUMBER: 129:261405
TITLE: Polyester compositions with good draw-down, impact, heat, and chemical resistances and high transparency and gloss
INVENTOR(S): Tokumizu, Shin; Yoshida, Atsushi; Fujimoto, Masaji
PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10245478	A	19980914	JP 1997-49131	19970304
PRIORITY APPLN. INFO.:			JP 1997-49131	19970304

ED Entered STN: 22 Sep 1998
GI



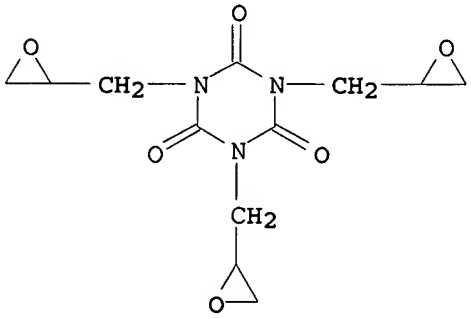
I

AB Title compns., useful for hollow containers, direct blow moldings, sheets, films, etc., comprise (A) 97-99.99% polyesters [intrinsic viscosity [η; at 25° in phenol/tetrachloroethane (1/1) mixture] ≥0.5 dL/g] prepared from (a1) acid components containing 80-100 mol% aromatic dicarboxylic acids and their ester-formable derivs. and (a2) glycol components and (B) 0.01-3% isocyanuric acid derivs. I [R = glycidyl, R'H, R'CO2H; R' = methylene, C2-4 alkylene, (C2H4O)n n = 1-8]. Thus, a composition containing a polyester (prepared from 100 mol parts terephthalic acid and 120 mol parts ethylene glycol; η = 0.80 dL/g) and 0.02% (based on the polyester) 1,3,5-tris(2-hydroxyethyl)-isocyanurate was molded into a sheet, which showed good draw-down, impact, heat, and chemical resistances, transparency, and gloss.

IT **2451-62-9 2904-41-8**, 1,3,5-Tris(2-carboxyethyl) isocyanurate
(isocyanurate-containing polyester compns. with good draw-down, impact, heat, and chemical resistances, transparency, and gloss)

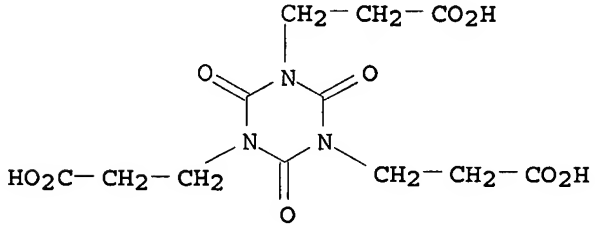
RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 2904-41-8 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)

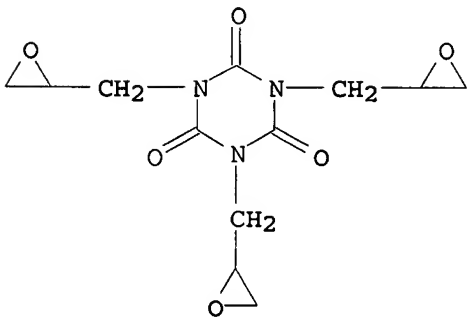


IC ICM C08L067-03
ICS C08K005-3477
CC 37-6 (Plastics Manufacture and Processing)
IT 839-90-7, 1,3,5-Tris(2-hydroxyethyl) isocyanurate **2451-62-9**
2904-41-8, 1,3,5-Tris(2-carboxyethyl) isocyanurate
213608-03-8, 1,3,5-Tris(hydroxybutyl) isocyanurate
(isocyanurate-containing polyester compns. with good draw-down, impact, heat, and chemical resistances, transparency, and gloss)

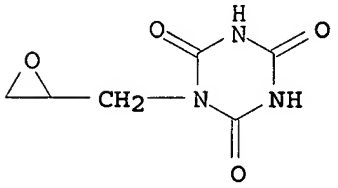
L43 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:365821 HCAPLUS
DOCUMENT NUMBER: 127:18450
TITLE: Stabilized fire-resistant poly(alkylene terephthalate) compositions with excellent heat and thermal discoloration resistance
INVENTOR(S): Tsukahara, Yoshimitsu; Ihara, Hisaji; Akitsu, Masaharu; Kubo, Michihiro
PATENT ASSIGNEE(S): Sankyo Organic Chemicals Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09077962	A	19970325	JP 1996-127167	19960522
JP 3414930	B2	20030609		
PRIORITY APPLN. INFO.:			JP 1995-174917 A	19950711

ED Entered STN: 11 Jun 1997
AB The title compns. are formed by adding epoxypropyl isocyanurate and hydrotalcite and/or zeolite to poly(alkylene terephthalate) fireproofed by Br-containing fireproofing agents. A composition from C7000 PBT 100, Fire Guard 7500 20, Sb2O3 5, triglycidyl isocyanurate 0.6, and hydrotalcite 0.1 part gave an injection molding with slight yellow coloration and degradation time (to brown at 255°) 130 min.
IT **2451-62-9 146692-58-2**
(stabilized fire-resistant poly(alkylene terephthalate) compns. with excellent heat and thermal discoloration resistance)
RN 2451-62-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 146692-58-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC ICM C08L067-02
ICS C08K003-26; C08K003-34; C08K005-03; C08K005-3477
CC 37-6 (Plastics Manufacture and Processing)
IT **2451-62-9** 12363-58-5 25713-60-4, Pyroguard SR-245
32588-76-4, Saytex BT-93W 52918-26-0, Diglycidyl isocyanurate
146692-58-2 153067-78-8 163797-39-5 163858-94-4
176791-39-2 189643-44-5
(stabilized fire-resistant poly(alkylene terephthalate) compns. with excellent heat and thermal discoloration resistance)

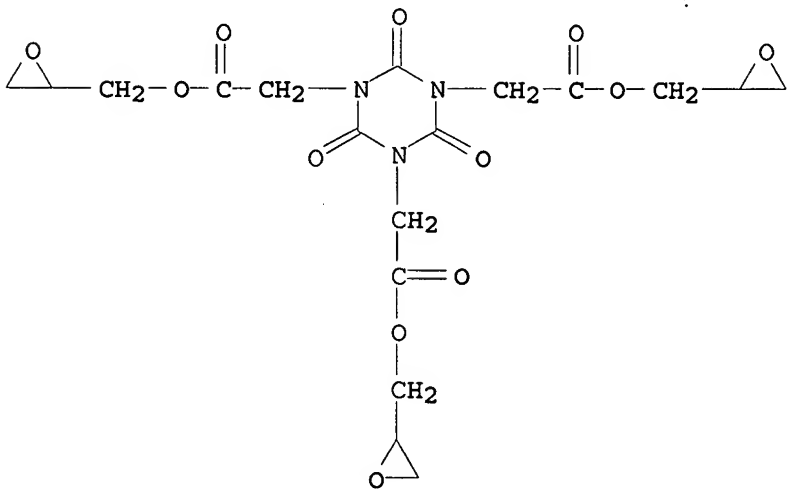
L43 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:391589 HCAPLUS
DOCUMENT NUMBER: 125:59986
TITLE: Novel epoxy compounds with triazine ring skeleton and their manufacture
INVENTOR(S): Myake, Satoshi; Ikeda, Hisao; Hidaka, Motohiko; Moro, Takeo
PATENT ASSIGNEE(S): Nissan Chemical Ind Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08081461	A	19960326	JP 1994-217042	19940912
JP 3368680	B2	20030120		

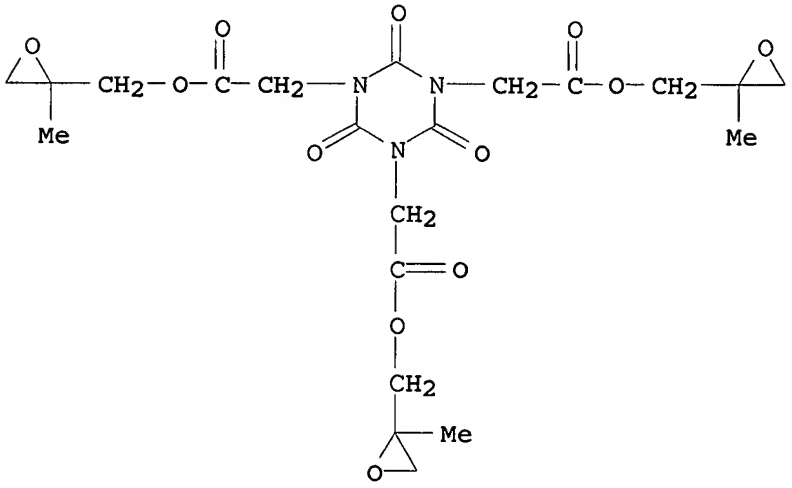
PRIORITY APPLN. INFO.: JP 1994-217042 19940912

OTHER SOURCE(S): MARPAT 125:59986
ED Entered STN: 09 Jul 1996
AB The epoxy compds. with good workability, giving resins with good weather and heat resistance are manufactured by addition reaction of tri(carboxyalkyl)isocyanurates with epihalohydrins and treating the resulting esters with an alkali substance. Refluxing tri(carboxymethyl)isocyanurate 101, α-epichlorohydrin 625, and Me4N+ Cl-3 g at 100° and adding 120 g 50% NaOH over 3 h while removing the formed water and unreacted reactant gave tri(carboxymethyl)isocyanurate triglycidyl ester (I). I 100, Me humic anhydride 90.5, and DMP 30 3 parts gave a cured resin with glass temperature 195°.
IT **178200-12-9P 178200-13-0P 178200-14-1P**
(manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

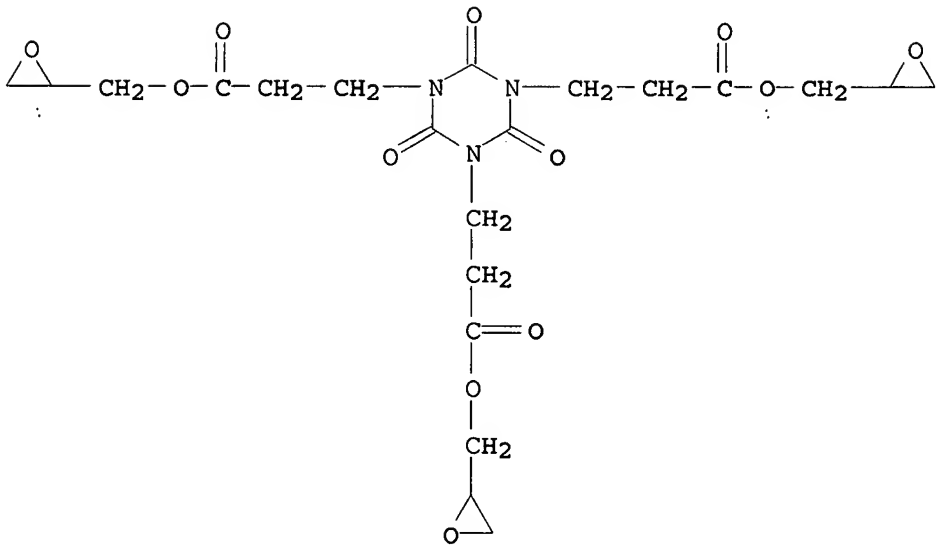
RN 178200-12-9 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-, tris(oxiranylmethyl) ester (9CI) (CA INDEX NAME)



RN 178200-13-0 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-, tris[(2-methyloxiranyl)methyl] ester (9CI) (CA INDEX NAME)



RN 178200-14-1 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo-, tris(oxiranylmethyl) ester (9CI) (CA INDEX NAME)



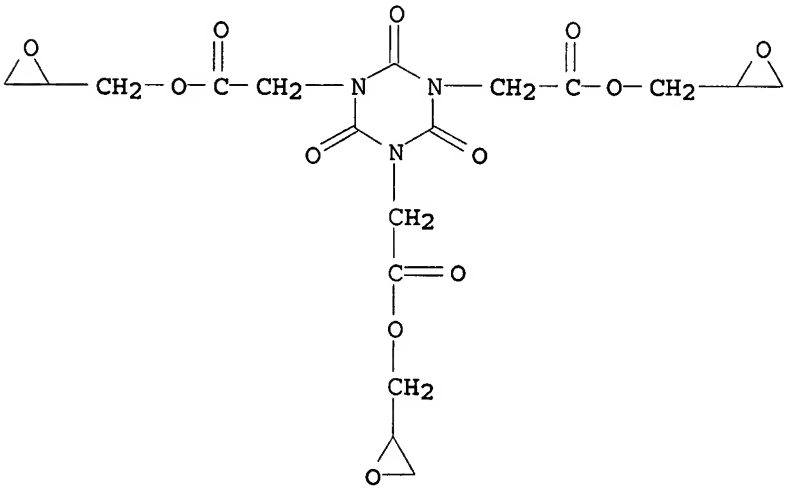
IT **178200-15-2P 178200-16-3P 178200-17-4P**
(manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

RN 178200-15-2 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-, tris(oxiranylmethyl) ester, polymer with (3aα,4β,7β,7aα)-3a,4,7,7a-tetrahydromethyl-4,7-methanoisobenzofuran-1,3-dione (9CI) (CA INDEX NAME)

CM 1

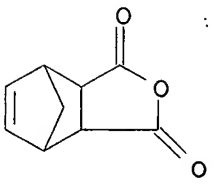
CRN 178200-12-9
CMF C18 H21 N3 O12



CM 2

CRN 53584-57-9

CMF C10 H10 O3
CCI IDS

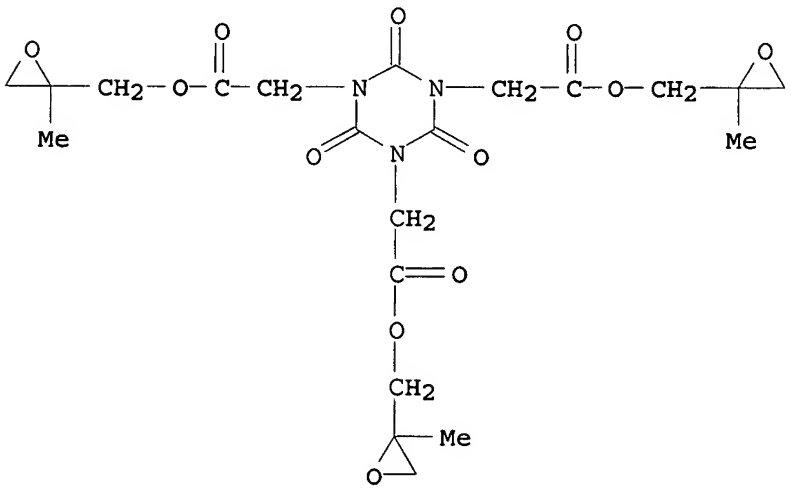


D1—Me

RN 178200-16-3 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-, tris[(2-methyloxiranyl)methyl] ester, polymer with (3aα,4β,7β,7aα)-3a,4,7,7a-tetrahydromethyl-4,7-methanoisobenzofuran-1,3-dione (9CI) (CA INDEX NAME)

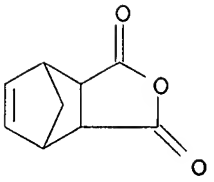
CM 1

CRN 178200-13-0
CMF C21 H27 N3 O12



CM 2

CRN 53584-57-9
CMF C10 H10 O3
CCI IDS

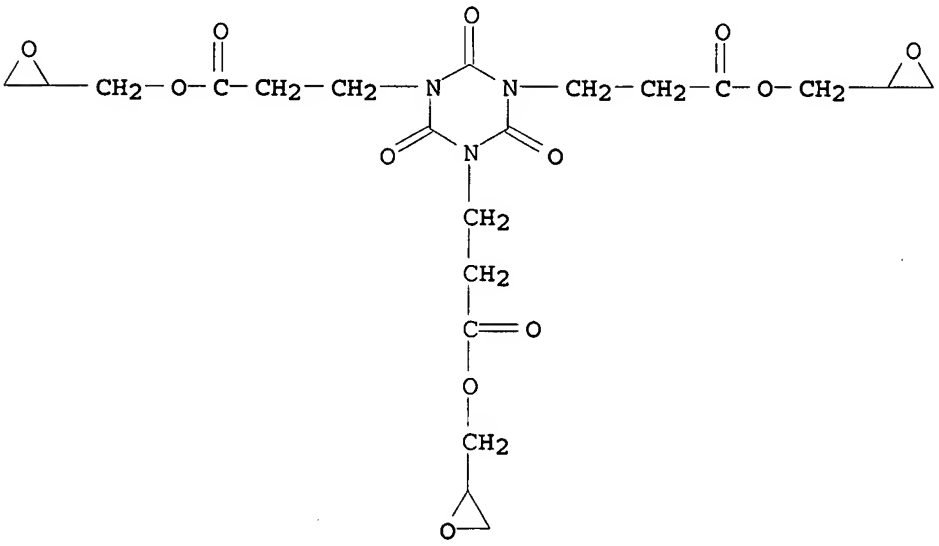


D1—Me

RN 178200-17-4 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo-, tris(oxiranylmethyl) ester, polymer with (3aα,4β,7β,7aα)-3a,4,7,7a-tetrahydromethyl-4,7-methanoisobenzofuran-1,3-dione (9CI) (CA INDEX NAME)

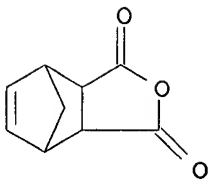
CM 1

CRN 178200-14-1
CMF C21 H27 N3 O12



CM 2

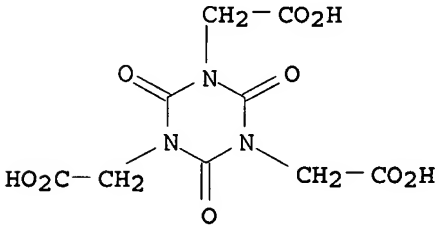
CRN 53584-57-9
CMF C10 H10 O3
CCI IDS



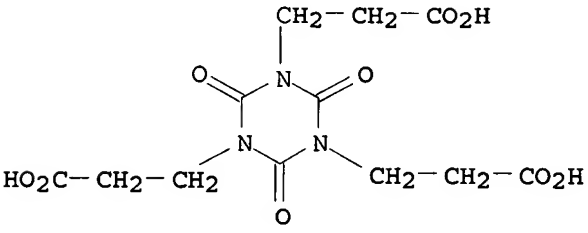
D1—Me

IT **1968-52-1 2904-41-8**
(reaction with epichlorohydrin; manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

RN 1968-52-1 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 2904-41-8 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



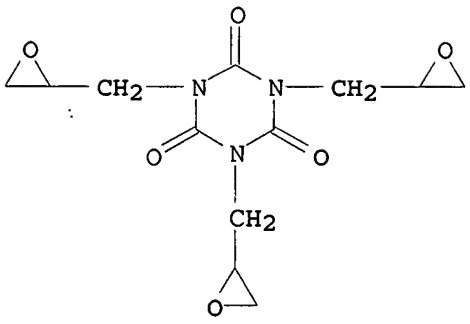
IC ICM C07D405-14
ICS C08G059-32
ICI C07D405-14, C07D251-34, C07D303-48
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 35
IT **178200-12-9P 178200-13-0P 178200-14-1P**
(manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)
IT **178200-15-2P 178200-16-3P 178200-17-4P**
(manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)
IT **1968-52-1 2904-41-8**
(reaction with epichlorohydrin; manufacture of novel epoxy compds. with

triazine ring skeleton for resins with good heat and weather resistance)

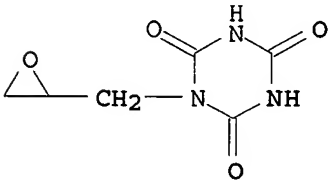
L43 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:659565 HCAPLUS
DOCUMENT NUMBER: 119:259565
TITLE: Photopolymerizable composition containing interlinked allylic and epoxy polymer network
INVENTOR(S): Breeveld, Ricardo Henry; Schutyser, Jan Andre Jozef
PATENT ASSIGNEE(S): AKZO N. V., Neth.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9311465	A1	19930610	WO 1992-EP2332	19921009
W: CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
PRIORITY APPLN. INFO.:			EP 1991-203191 A	19911206

ED Entered STN: 11 Dec 1993
AB A photopolymerizable composition is described comprising a mixture of interpenetrating network-forming monomers and a photoinitiator, the interpenetrating network-forming monomers comprising ethylenically unsatd. compds. capable of forming a polymer network, and a mixture capable of forming an epoxy resin network. The polymer network is formed, at least partially, from allylic compds. Essentially the polymer network and the epoxy resin network are interlinked by means of a compound having both an ethylenically unsatd. functional group and a functional group reactive towards at least one of the ingredients in the epoxy resin network. Preferably, the compound is an ethylenically unsatd. epoxy crosslinker, such as maleic anhydride. The photopolymerizable composition, which optionally further comprises photopolymerizable vinylic monomers, a film-forming binder, solvents, pigments, and other additives, proves particularly useful as an additive plating resist or, if additive catalysts are added, as an electroless platable resist.
IT **2451-62-9 146692-58-2**
(photocrosslinkable composition containing)
RN 2451-62-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 146692-58-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC ICM G03F007-027
ICS H05K003-18; H05K003-46; C23C018-18
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 101-37-1 108-31-6, 2,5-Furandione, uses 925-21-3 1025-15-6
2451-62-9 3990-03-2 9003-35-4D, glycidyl ethers
15625-89-5 24448-20-2 25068-38-6 25550-51-0 42610-22-0
52918-26-0 **146692-58-2**
(photocrosslinkable composition containing)

L43 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:540514 HCAPLUS
DOCUMENT NUMBER: 119:140514
TITLE: Heat stabilizers for fire-resistant styrene polymer compositions
INVENTOR(S): Tsukahara, Yoshimitsu; Ihara, Hisaji; Yoshimura, Shigeto
PATENT ASSIGNEE(S): Sankyo Organic Chemicals Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05043757	A	19930223	JP 1991-202772	19910813
JP 2742479	B2	19980422		
PRIORITY APPLN. INFO.:			JP 1991-202772	19910813

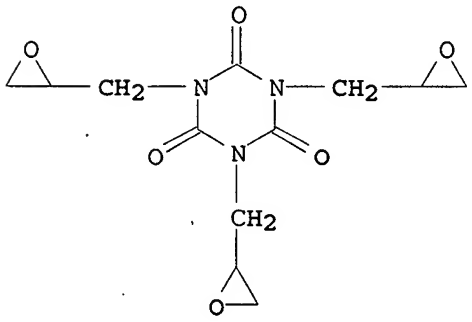
ED Entered STN: 02 Oct 1993

AB The title compns. comprising styrene polymers, polycarbonates, and Br-containing fireproofing agents are stabilized against thermal degradation by adding phosphate ester metal salts and, optionally, epoxypropyl isocyanurates. A mixture of Toyolac 100 50, Panlite L 1250 50, EBR 700 20, Sb2O3 3, and Na didecyl phosphate 0.5 part was used to prepare a laminate which was not discolored after 60 min at 265°.

IT **2451-62-9 146692-58-2**
(heat stabilizers, for ABS-polycarbonate blends containing fire retardants)

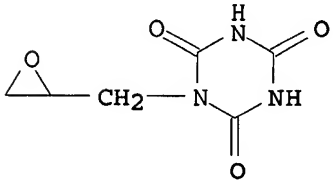
RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 146692-58-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC ICM C08L025-02
ICS C08K005-02; C08K005-3477; C08K005-521; C08L069-00

CC 37-6 (Plastics Manufacture and Processing)

IT **2451-62-9** 16686-86-5 51568-80-0 52918-26-0 56624-77-2 109572-94-3 **146692-58-2** 149991-05-9 149991-06-0 149991-07-1 149991-08-2 149991-09-3 149991-10-6 149991-11-7 149991-12-8 149992-53-0D, boron complexes
(heat stabilizers, for ABS-polycarbonate blends containing fire retardants)

L43 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:148793 HCAPLUS

DOCUMENT NUMBER: 118:148793

TITLE: Heat-stabilization of flame-resistant polycarbonate-styrene resin compositions

INVENTOR(S): Tsukahara, Yoshimitsu; Ihara, Hisaji; Yoshimura, Shigeto

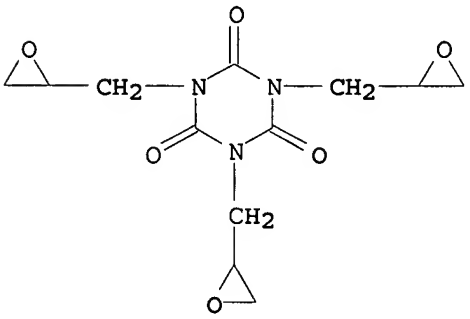
PATENT ASSIGNEE(S): Sankyo Organic Chemicals Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

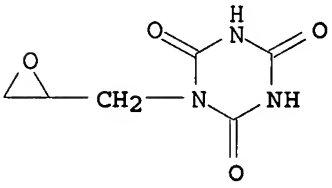
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04266956	A	19920922	JP 1991-28158	19910222
PRIORITY APPLN. INFO.:			JP 1991-28158	19910222

OTHER SOURCE(S): MARPAT 118:148793
ED Entered STN: 13 Apr 1993
AB The title compns. containing styrene resins, polycarbonates, and bromide fireproofing agents are stabilized by adding ≥1 of epoxypropyl isocyanurate and phosphates (R1O)mP(O)(OH)3-m (R1 = alkyl, hydroxyalkyl, alkenyl, aryl, or cycloalkyl; m = 1 or 2). Thus, a composition of Toyolac 100 50, Panlite L1250 50, EBR 700 (epoxy oligomer) 18, Sb2O3 3, mono(epoxypropyl) isocyanurate 0.25, and (C18H37O)2P(O)OH (I) 0.25 part was kneaded at 185° for 3 min, sheeted, and hot pressed in 8 layers at 275° and 5 kg/cm2 to show degradation time 50 min., vs. 30 for a control without I.
IT **2451-62-9 146692-58-2**
(heat stabilizers, for fire-resistant polycarbonate-styrene polymer blends)
RN 2451-62-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



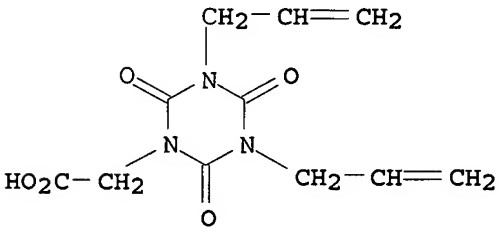
RN 146692-58-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



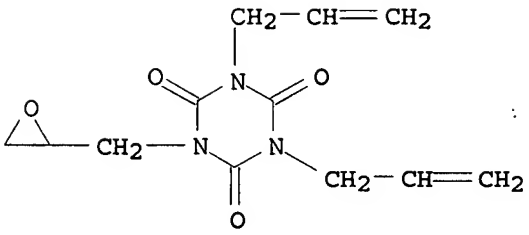
IC ICM C08L025-04
ICS C08K005-02; C08K005-3477; C08K005-52; C08L069-00
CC 37-6 (Plastics Manufacture and Processing)

IT 1623-22-9 **2451-62-9** 2627-35-2 2958-09-0 3037-89-6
3115-39-7 21150-89-0 27856-12-8 34332-96-2 42714-99-8
52918-26-0 95907-55-4 **146692-58-2** 146692-59-3
146692-60-6 146692-61-7 146692-62-8 146692-63-9
(heat stabilizers, for fire-resistant polycarbonate-styrene polymer blends)

L43 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:23139 HCAPLUS
DOCUMENT NUMBER: 118:23139
TITLE: Study of the structure and interaction of isocyanurates with a mineral filler
AUTHOR(S): Kotorlenko, L. A.; Novikova, O. A.
CORPORATE SOURCE: Inst. Probl. Materialoved., Kiev, USSR
SOURCE: Kompozitsionnye Polimernye Materialy (1979-1996?) (1990), 45, 1-8
CODEN: KPMAD8; ISSN: 0203-3275
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 24 Jan 1993
AB To study the interaction of diallyl isocyanurate derivs. with glass fibers, allyl, hydroxypropyl, epoxypropyl, carboxymethyl, and hydroxyethyl diallyl isocyanates adsorbed on silica gel were studied as a model system by IR spectroscopy. The semipolarity of the carbonyl bonds in the isocyanates was confirmed. Interaction of OH groups of the silica gel surface with the isocyanurate ring was considered. The quality of fiber lubricants based on isocyanuric acid derivs. increased with an increasing number of substituents capable of reaction with OH groups of the surface and increasing interaction.
IT **13915-42-9 20395-16-8**, Diallyl epoxypropyl isocyanurate
(interaction of, with glass fibers, model systems for determination of)
RN 13915-42-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)



RN 20395-16-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



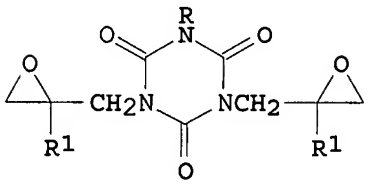
CC 37-6 (Plastics Manufacture and Processing)
IT 839-88-3, Diallyl hydroxyethyl isocyanurate 1025-15-6, Triallyl isocyanurate 6294-79-7, Diallyl isocyanurate **13915-42-9** 14748-81-3 **20395-16-8**, Diallyl epoxypropyl isocyanurate
(interaction of, with glass fibers, model systems for determination of)

L43 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:497857 HCAPLUS
DOCUMENT NUMBER: 95:97857
TITLE: Cytostatic pharmaceutical compositions and isocyanuric acid derivatives
INVENTOR(S): Fischer, Herbert; Budnowski, Manfred; Zeidler, Ulrich
PATENT ASSIGNEE(S): Henkel K.-G.a.A., Fed. Rep. Ger.
SOURCE: Ger. Offen., 43 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3037094	A1	19810416	DE 1980-3037094	19801001
AT 7906552	A	19821215	AT 1979-6552	19791008
AT 371816	B	19830810		
NL 8005187	A	19810410	NL 1980-5187	19800917
DK 8003953	A	19810409	DK 1980-3953	19800918
SE 8006716	A	19810409	SE 1980-6716	19800925
FI 8003108	A	19810409	FI 1980-3108	19800930
SU 976849	A3	19821123	SU 1980-2990883	19801003
GB 2060633	A	19810507	GB 1980-32108	19801006
GB 2060633	B	19840321		
ZA 8006161	A	19810930	ZA 1980-6161	19801006
DD 153370	A5	19820106	DD 1980-224376	19801006
CA 1159064	A1	19831220	CA 1980-361580	19801006
BE 885555	A1	19810407	BE 1980-202350	19801007
NO 8002977	A	19810409	NO 1980-2977	19801007
ES 495697	A1	19811216	ES 1980-495697	19801007
FR 2484418	A1	19811218	FR 1980-21417	19801007
FR 2484418	B1	19850906		
HU 24864	A2	19830428	HU 1980-2442	19801007
HU 182210	B	19831228		
PL 125862	B1	19830630	PL 1980-227131	19801007
US 4393060	A	19830712	US 1980-194908	19801007
CH 648554	A5	19850329	CH 1980-7487	19801007
AU 8063063	A	19810416	AU 1980-63063	19801008
AU 551079	B2	19860417		
JP 56061374	A	19810526	JP 1980-141835	19801008

CA 1179266 A2 19841211 CA 1983-435840 19830831
PRIORITY APPLN. INFO.: AT 1979-6552 A 19791008
CA 1980-361580 A3 19801006

OTHER SOURCE(S): CASREACT 95:97857; MARPAT 95:97857
ED Entered STN: 12 May 1984
GI

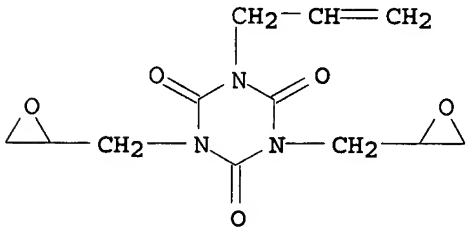


I

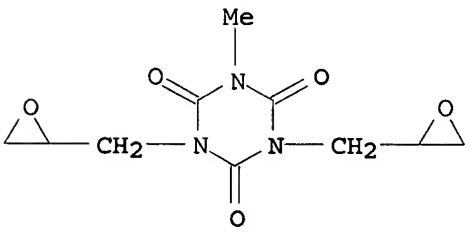
AB Diglycidylisocyanurates I (R = optionally substituted alkyl, aryl, cycloalkyl, heterocyclic; R1 = H, alkyl) were prepared Thus, triallylisocyanurate was epoxided to give I (R = allyl, R1 = H) and triglycidylisocyanurate, which was hydrolyzed to I [R = CH2CH(OH)CH2OH, R1 = H; II]. Three 50 mg/kg dodes of II i.p. increased the survival time of leukemia P388-infected mice to 226%.

IT **69731-45-9P 69804-58-6P 78627-41-5P**
78627-42-6P 78627-44-8P 78627-46-0P
78627-47-1P 78627-48-2P 78627-49-3P
78627-50-6P 78627-51-7P 78639-55-1P
(preparation and antitumor activity of)

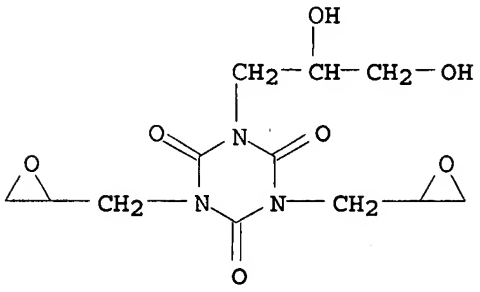
RN 69731-45-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propen-1-yl)- (CA INDEX NAME)



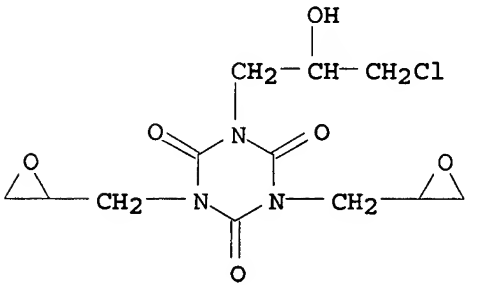
RN 69804-58-6 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-methyl-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



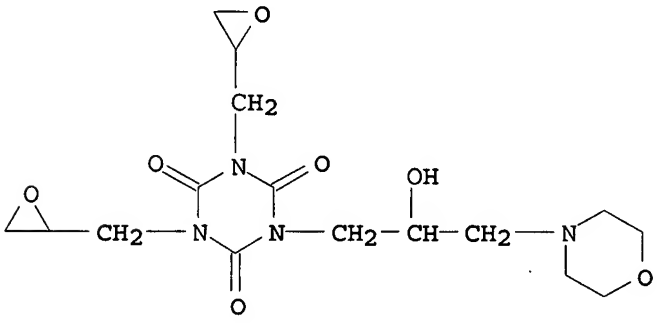
RN 78627-41-5 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2,3-dihydroxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



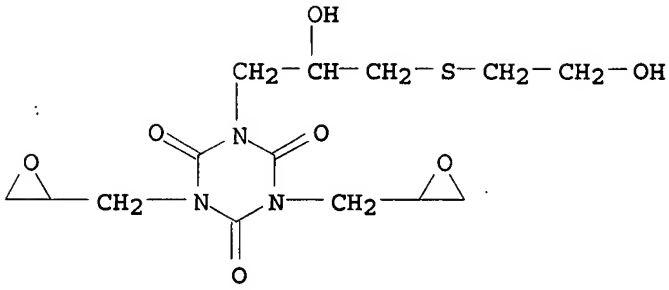
RN 78627-42-6 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(3-chloro-2-hydroxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



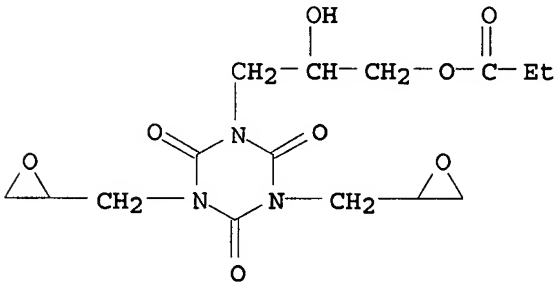
RN 78627-44-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-(4-morpholinyl)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



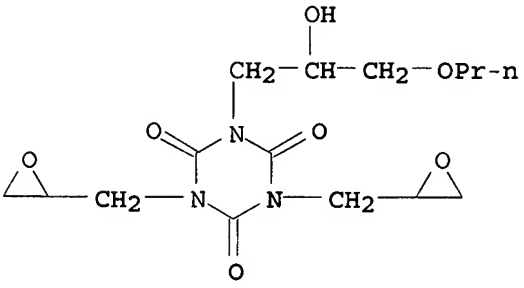
RN 78627-46-0 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-[(2-hydroxyethyl)thio]propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



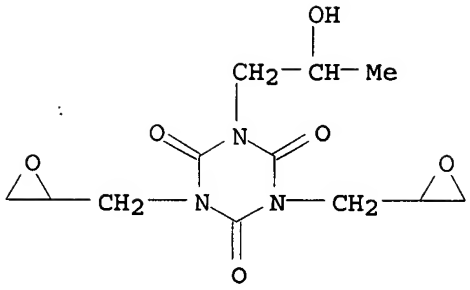
RN 78627-47-1 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-(1-oxopropoxy)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



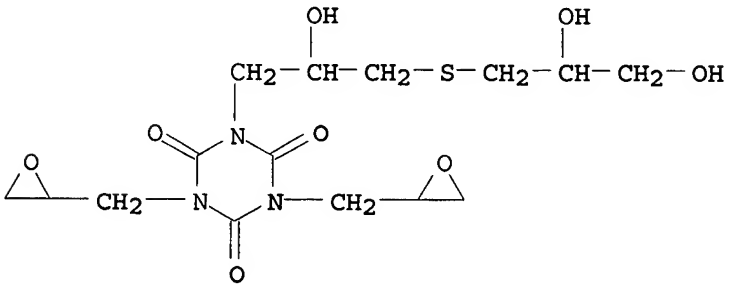
RN 78627-48-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-hydroxy-3-propoxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



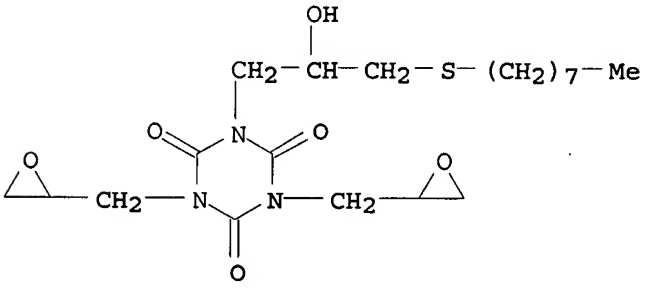
RN 78627-49-3 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-hydroxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



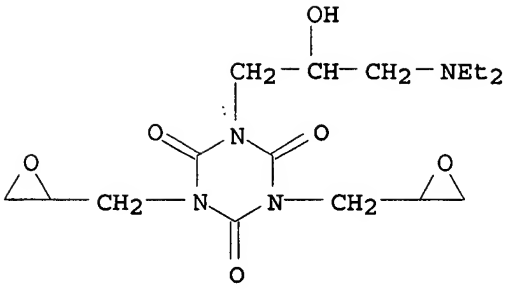
RN 78627-50-6 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-[(2,3-dihydroxypropyl)thio]-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



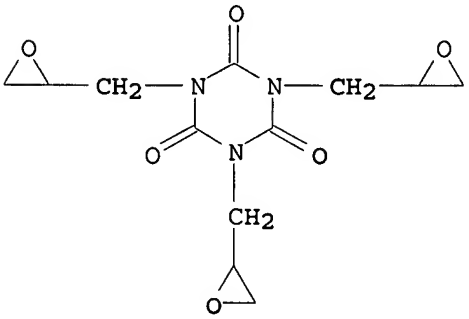
RN 78627-51-7 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-(octylthio)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



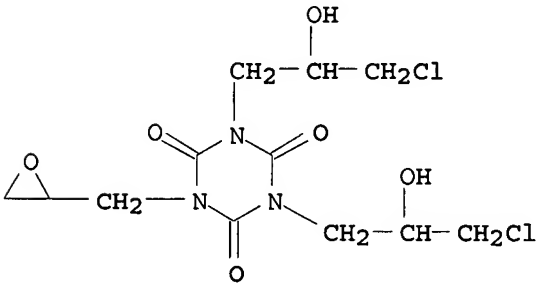
RN 78639-55-1 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-(diethylamino)-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



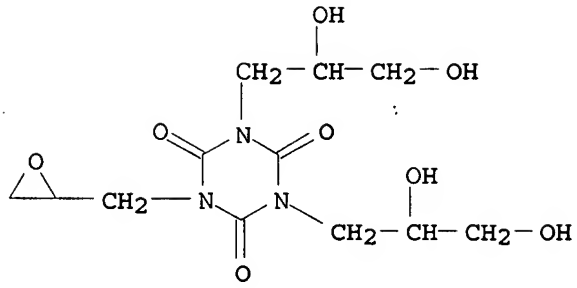
IT **2451-62-9P**
(preparation and hydrolysis of)
RN 2451-62-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-
(CA INDEX NAME)



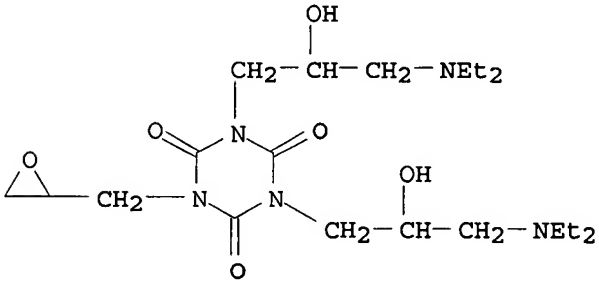
IT **53866-66-3P 53866-69-6P 78627-43-7P**
78627-45-9P 78627-52-8P 78627-53-9P
(preparation of)
RN 53866-66-3 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(3-chloro-2-
hydroxypropyl)-5-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



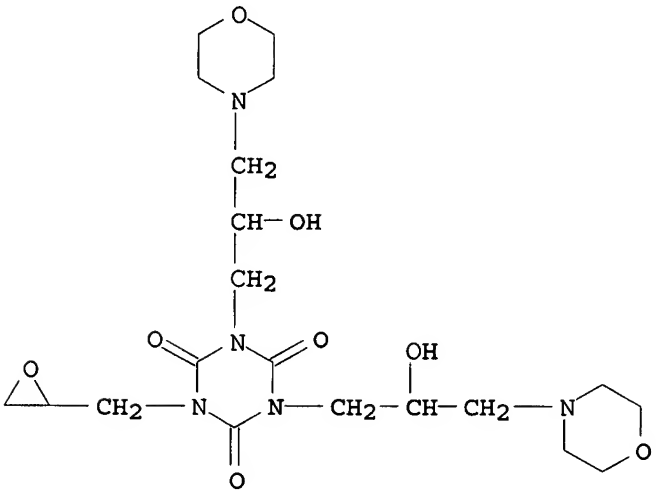
RN 53866-69-6 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2,3-dihydroxypropyl)-5-
(oxiranylmethyl)- (9CI) (CA INDEX NAME)



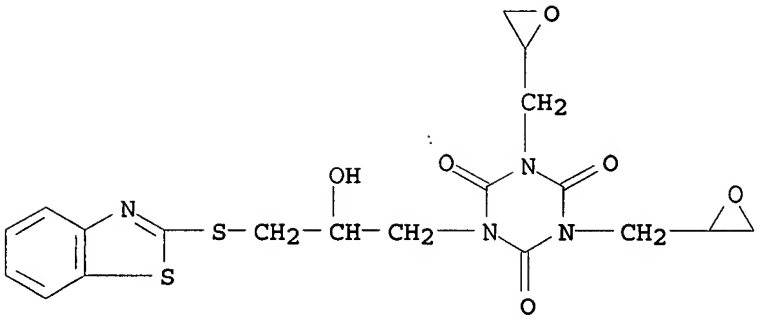
RN 78627-43-7 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[3-(diethylamino)-2-hydroxypropyl]-5-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



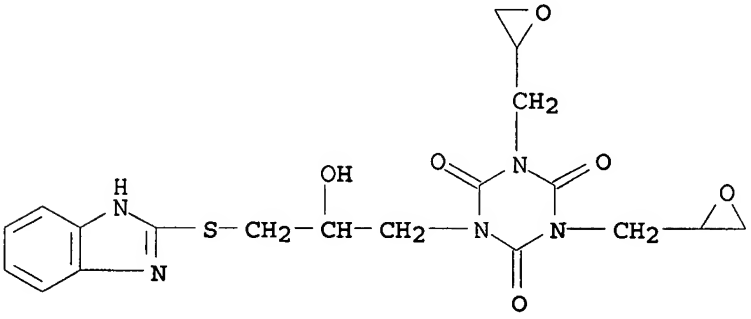
RN 78627-45-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[2-hydroxy-3-(4-morpholinyl)propyl]-5-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



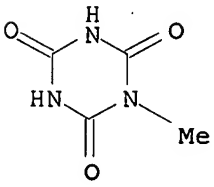
RN 78627-52-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-(2-benzothiazolylthio)-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



RN 78627-53-9 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-(1H-benzimidazol-2-ylthio)-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



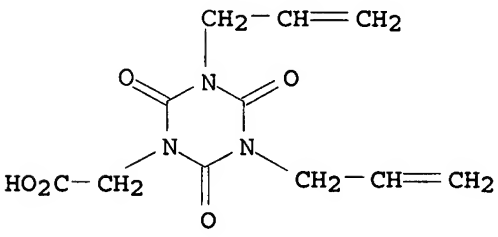
IT **6726-47-2**
(reaction of, with epichlorohydrin)
RN 6726-47-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-methyl- (9CI) (CA INDEX NAME)



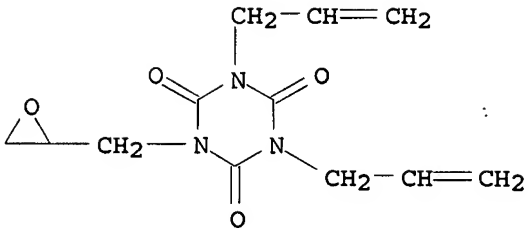
IC C07D405-06; C07D251-32; C07D413-06; A61K031-53
CC 28-21 (Heterocyclic Compounds (More Than One Hetero Atom))
IT **69731-45-9P 69804-58-6P 78627-41-5P**
78627-42-6P 78627-44-8P 78627-46-0P
78627-47-1P 78627-48-2P 78627-49-3P
78627-50-6P 78627-51-7P 78639-55-1P
(preparation and antitumor activity of)
IT **2451-62-9P**
(preparation and hydrolysis of)
IT **53866-66-3P 53866-69-6P 78627-43-7P**
78627-45-9P 78627-52-8P 78627-53-9P
(preparation of)
IT 108-80-5 **6726-47-2**

(reaction of, with epichlorohydrin)

L43 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:536892 HCAPLUS
DOCUMENT NUMBER: 81:136892
TITLE: Dependence of the physicomechanical properties of glass fiber-reinforced polyester plastics on the surface treatment of the glass fiber
AUTHOR(S): Abraimova, V. P.; Novikova, O. A.; Shevlyakov, A. S.
CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin., Kiev, USSR
SOURCE: Sintez i Fiziko-Khimiya Polimerov (1974), 13, 150-3
CODEN: SFKPAO; ISSN: 0583-4317
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
AB Surface treatment of glass fibers, used as reinforcement for polyester resins, with diallyl hydroxyethyl isocyanurate (I) [839-88-3], diallyl epoxypropyl isocyanurate (II) [**20395-16-8**], diallyl carboxymethyl isocyanurate (III) [**13915-42-9**] and diallyl hydroxybutyl isocyanurate (IV) [52794-84-0] was examined in fibers containing I and II as lubricants showed increased phys. mech. and elec. properties, compared to those treated with paraffin emulsions. I and II increased the resistance to water and cross-breaking strength of fibers, due to their solubility in water and softening of the fiber surface. They polymerize by themselves and contained allyl group which interacted with double bonds in unsatd. compds., forming a strong bond between the resins and glass fiber surface. The crystalline III had good adhesion properties but the lubricant film was rigid, brittle and decomposed on processing, whereas IV was unstable in storage, and the strength of fibers containing it decreased significantly on exposure to water. Mech. properties of plastics containing lubricants were directly dependent on their water absorption.
IT **13915-42-9 20395-16-8**
(lubricants, for glass fiber, mech. and elec. properties of reinforced plastics in presence of)
RN 13915-42-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)

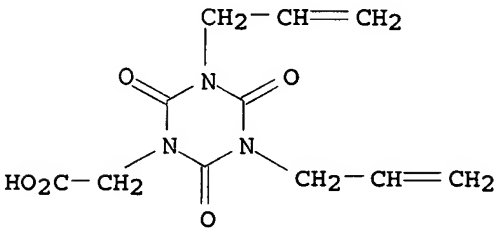


RN 20395-16-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)

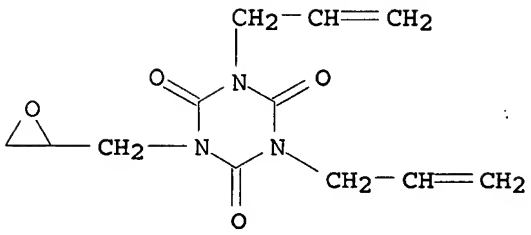


CC 36-6 (Plastics Manufacture and Processing)
IT 839-88-3 **13915-42-9 20395-16-8** 52794-84-0
(lubricants, for glass fiber, mech. and elec. properties of reinforced plastics in presence of)

L43 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:71501 HCAPLUS
DOCUMENT NUMBER: 80:71501
TITLE: Evaluation of the effectiveness of potential finishing agents-lubricants
AUTHOR(S): Fainerman, A. E.; Lipatov, Yu. S.; Novikova, O. A.; Samoilenko, M. I.; Ivanova, G. V.
CORPORATE SOURCE: USSR
SOURCE: Plasticheskie Massy (1973), (9), 38-40
CODEN: PLMSAI; ISSN: 0554-2901
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
AB The effectiveness of 14 lubricants and finishing agents for glass reinforced plastic, such as diallyl isocyanurate (I) [6294-79-7] and 12 alkyl derivs. such as hydroxyethyl diallyl isocyanurate (II) [839-88-3], 3-hydroxypropyl diallyl isocyanurate (III) [50978-73-9], or 4-hydroxybutyl diallyl isocyanurate (IV) [43193-30-2] was evaluated from surface tension data. The surface tension steadily decreased in the order II > III > IV. The phys. mech. properties of glass reinforced plastics modified with I derivs. were determined
IT **13915-42-9 20395-16-8**
(lubricants, for glass fiber-reinforced plastics)
RN 13915-42-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)



RN 20395-16-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



CC 36-6 (Plastics Manufacture and Processing)
IT 839-88-3 6294-79-7 13915-41-8 **13915-42-9**
20395-16-8 40254-50-0 43193-30-2 43193-32-4 43193-33-5
43193-34-6 50978-73-9 51348-03-9
(lubricants, for glass fiber-reinforced plastics)

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L31               STR L29
L32            0 SEA SUB=L13 SSS SAM L31
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L43            22 SEA ABB=ON  PLU=ON  (L41 OR L42)
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